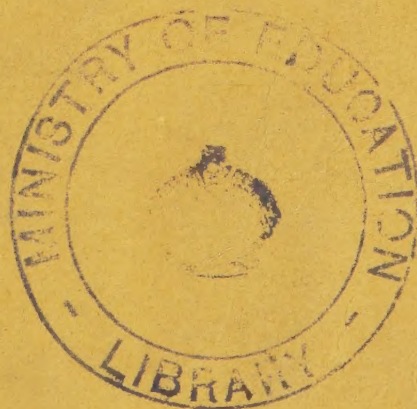


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**T**HE Central Council for the Care of Cripples, while welcoming the very carefully documented information in this Report, feels that it is necessary to draw attention to the necessity for seeing the problem as a whole in its true perspective.

In these circumstances, therefore, in the opinion of the Central Council for the Care of Cripples, the recommendations should not be regarded as forming an overall basis for dealing with the problem of children suffering from physical as well as mental disabilities.

This note should not be taken to detract from the validity of the Report as a contribution towards the solution of the problem under consideration.

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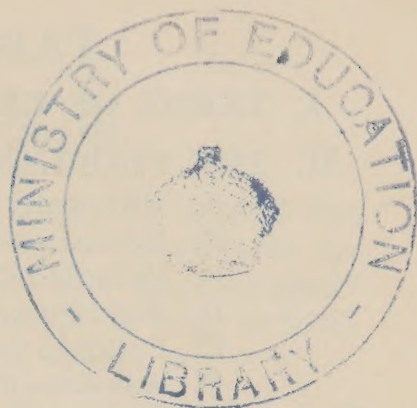
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NOTE: The main conclusions and recommendations of this Survey are embodied in summarised form in Section V and VII. The rest of the Report is concerned to enlarge and clarify the data on which these conclusions are based.



## SECTION I

### TERMS OF REFERENCE

The Central Council for the Care of Cripples invited the National Association for Mental Health to co-operate in an enquiry into the educational needs of physically handicapped\* children, and to send Educational Psychologists to visit schools for these children in order to investigate and report on:—

1. The kind and degree of educational retardation and emotional maladjustment most commonly found in this group of handicapped children.
2. The best methods of examining, assessing and reporting on individual physically handicapped children and to indicate the kind of organisation within schools or area units which may best meet the needs of these children without prejudicing the education of non-retarded physically handicapped children.

A rider was added, at the request of the Central Council for the Care of Cripples that “The Survey would be directed, inter alia, towards ascertaining to what extent children suffering from both physical and mental handicaps were, in fact, being educated in schools for the physically handicapped, to the detriment of the mentally normal children, and whether these children should not be in entirely separate establishments.”

## SECTION II

### THE PROBLEM

This Section introduces the problems raised by the terms of reference, outlines the present machinery for dealing with them, and defines the meaning which such terms as “Maladjusted” and “Backward” will carry in the rest of the Report.

The Education Act, 1944, requires that children shall receive education suited to “Their different ages, abilities, and aptitudes” and recognises “the need for securing that provision is made for pupils who suffer from any disability of mind or body, by providing, either in special schools or otherwise, special educational treatment, that is to say, education by special methods appropriate to persons suffering from that disability.”

---

\* The Term “Physically Handicapped” is used here and throughout this Report in the restricted sense which it carries in the Ministry of Education School Health Service Regulations, 1945, i.e, to denote children, other than those suffering solely from a defect of sight or hearing, who require special provision by reason of disease or crippling defect (see also Section II, paragraphs 2 and 3 of this Report).



Eleven categories of handicapped pupils are described in The Handicapped Pupils and School Health Service Regulations, 1945. This Report is concerned only with those who are physically handicapped, and who may in addition show evidence of educational sub-normality or maladjustment, or a combination of all three handicaps.

### **A. PHYSICALLY HANDICAPPED CHILDREN**

Physically handicapped children, though grouped under one heading in the regulations as children suffering from "disease or crippling defect," are of many types. The kind of educational provision which they receive is determined largely by medical considerations, but home conditions and local facilities are also influential factors in the decision.

The following are the main types of provision:—

#### **(i) NON-RESIDENTIAL**

Day Schools for physically handicapped pupils under the Local Education Authority.

#### **(ii) RESIDENTIAL**

- (a) Residential Schools for physically handicapped pupils under the Local Education Authority.
- (b) Residential Schools under voluntary management.
- (c) Hospital Schools.

### **B. EDUCATIONALLY SUB-NORMAL CHILDREN**

Educationally sub-normal pupils are defined in the regulations as children requiring special educational provision "by reason of limited ability or other conditions resulting in educational retardation."

The category therefore embraces (1) children who are backward in school work by reason of inferior ability (sub-normal intelligence) including those who were formerly certifiable by the School Medical Officer under Section 55 of the Education Act 1921 and (2) those who are backward in school work owing to other reasons.

Intelligence is measured by well standardised tests, that is, tests which have been given to such a large number of children under identical conditions that the performance of any individual child can be reliably compared with the normal performance level of other children of the same age group. These tests aim at assessing innate ability rather than acquired attainments.

The units of measurements are:—



(a) *Mental Age*

This is the standard that at least 50-60 per cent of children of a given age reach on a well standardised intelligence test and is therefore taken as the mental age of that group. If a child reaches a level that is average for children aged 10 years, his mental age is said to be 10 years, regardless of his actual age. Thus a bright child of 8 and a dull child of 12 may both have a mental age of 10.

(b) *Intelligence Quotient*

In order to compare the intellectual capacity of children at different ages, the ratio between a child's mental age and his actual or chronological age is expressed as a percentage. For example

$$\begin{array}{lcl} \frac{\text{M.A. 10.0 years} \times 100}{\text{C.A. 10.0 years.}} & = & \text{I.Q. 100 (average).} \\ \frac{\text{M.A. 12.0 years} \times 100}{\text{C.A. 10.0 years.}} & = & \text{I.Q. 120 (above average).} \\ \frac{\text{M.A. 8.0 years} \times 100}{\text{C.A. 10.0 years.}} & = & \text{I.Q. 80 (below average).} \end{array}$$

The intelligence quotient obtained from a standardised test given by a qualified and experienced person tends to be constant for the same test (i.e., a child of 8 years, whose mental age is 4, will be likely at 12 years to have a mental age of approximately 6 years) but in special circumstances test scores may be reduced by a number of adverse factors which will be discussed later. In terms of the educational provision they require at different intellectual levels, physically normal children may be grouped roughly as follows:—

- I.Q. under 50.—Defective and ineducable. Provision in Day Occupation Centres, or Residential Homes and Institutions for Mental Defectives.
- I.Q. 50-69.—Very inferior ability, provision in Day or Residential Schools for educationally sub-normal children.
- I.Q. 70-84.—Inferior ability, provision in ordinary schools, preferably in Special Classes, or in special cases where home circumstances or behaviour problems make it desirable, in E.S.N. Residential Schools.
- I.Q. 85-94.—Low average ability
- I.Q. 95-104.—Average ability
- I.Q. 105-114.—High average ability
- I.Q. 115-130.—Superior ability, provision in ordinary Central, Technical or Grammar Schools.
- I.Q. above 130.—Very superior ability—provision in Grammar or Technical Schools.



The dividing lines in this classification vary very much with local circumstances. For example, in rural areas where classes are smaller and more individual attention possible, children of rather inferior ability (I.Q.s approximately 75-85) are usually in ordinary school classes. Similarly, it is suggested by the Ministry of Education that a child with an I.Q. of 65 to 70 may well succeed in a special class of an ordinary school if he is a stable personality and other circumstances are favourable.

### **The Dull Child**

Dull children are those of inferior intelligence: it is usual to regard a child as dull if his intellectual level is 15 per cent or more below the average. All the available evidence suggests that intellectual capacity is inborn, and that although adverse circumstances may greatly restrict a child's use of his intellectual endowment, the very best conditions will not increase the intellectual assets at a child's command though they may enable him to use them to better advantage.

### **The Backward Child**

The backward child is one whose school work is below the average for his chronological age.

His backwardness may be due to innate dullness described above, but it may also be due to a number of other factors such as absence from school owing to a period of illness. An attainment test may show that a child is backward in a particular subject, e.g., Reading. By comparison with the results of an intelligence test we can then judge whether his backwardness is primarily the result of low intelligence or whether we must look for other causes which, unlike inferior ability, can often be remedied if they are known.

Backwardness is usually due to a combination of factors which frequently include one or more of the following:—

- (a) Dullness, i.e., inferior ability described above.
- (b) Absence from school.
- (c) Changes of school.
- (d) Specific disabilities which are not necessarily associated with any ascertainable physical defect, but nevertheless involve either poor visual orientation or poor discrimination of speech sounds and are therefore particularly liable to affect early progress in reading.
- (e) Poor physical condition (including lack of sleep).
- (f) Poor cultural background.
- (g) Emotional disturbance.



### **C. RETARDED CHILDREN**

We call those children "Retarded," who are backward in school attainment in relation to their mental capacity. Retardation in children of average or inferior ability is obvious as backwardness in relation to other children of the same chronological age. Children of superior ability, however, are often seriously retarded yet can still hold their own in class and their retardation may therefore pass unnoticed by the teacher.

### **D. MALADJUSTED CHILDREN**

Maladjusted pupils are defined in the Regulations as those who require special educational treatment on account of "emotional instability or psychological disturbance."

There appear to be many contributory factors in maladjustment, arising both from home and school environment, and from individual variations of temperament. Although, however, we cannot designate any one of these factors as the "cause," it is generally true that all forms of maladjustment are due to marked feelings of insecurity. Whilst any circumstance which undermines a sense of security may result in some degree of maladjustment, it is on the whole those occurring in the child's earlier life and in connection with his first relationship with other people in his family, which are likely to sow the seeds of most serious later disturbance.

Psychological disturbance may then show itself in many forms; but broadly speaking children who find difficulty in adjusting themselves to their environment tend to react in one of two principle ways—by negative withdrawal from its demands or by positive hostile behaviour. The former types of reaction are often grouped under some such heading as "Nervousness" and those of the latter type under "Anti-social Behaviour." The anti-social children (having more "nuisance value") are more often referred by teachers to Child Guidance Clinics, but nervous solitary behaviour, though often passing unnoticed in the classroom, may be at least as serious a symptom of mental ill-health.

Physically normal children who show symptoms of maladjustment are usually retained in the ordinary schools after being referred for examination, and in suitable cases, treatment, at a Child Guidance Clinic, but severe cases of disturbance or those with very unfavourable home circumstances may sometimes be sent to residential schools or hostels for maladjusted pupils. The treatment of maladjusted children in Special Schools set aside for this purpose is however, as noted by the Ministry in Circular 41, still at the experimental stage.



## **E. PLACEMENT OF PHYSICALLY HANDICAPPED CHILDREN SHOWING DUAL DISABILITIES**

In cases where a physically handicapped child shows, in addition to his physical disability, one of the disabilities mentioned above, viz., educational sub-normality or maladjustment, his placing is still normally determined by his physical handicap; since neither schools for educationally sub-normal nor for maladjusted pupils are able (as at present organised) to provide for children who primarily require specialised medical care.

In dealing with the question of alternative placement for such children, an attempt has been made in this report to keep three considerations particularly in mind, viz.:—

1. The number of educationally sub-normal or maladjusted children involved, and whether it would justify provision in separate schools, should provision seem desirable on other grounds.
2. The welfare of the individual child; both as to whether separate provision would give him a more appropriate and satisfying educational curriculum, and whether it would increase his chances of fitting, when physically capable, into the normal life of the community after he had left school.
3. The welfare of the school population as a whole; and whether it is prejudiced in any way by the presence of these children who are very backward in ordinary physically handicapped schools.

It seems necessary briefly to consider not only the actual school curriculum but also the subsequent placement of children after leaving school. The report may, therefore, include observations on points which at first sight appear rather outside the terms of reference, in particular on the subject of vocational training and employment prospects for bright as well as dull children with physical handicaps.

## **F. ASSESSMENT OF ABILITY IN PHYSICALLY HANDICAPPED CHILDREN**

### **Verbal Tests**

The main test of intelligence normally used by School Medical Officers for the ascertainment of educational sub-normality, is the Revised Stanford Binet.

In the hands of a qualified and experienced person, this is probably the best single test available for assessing how a child is likely to do in school.



In the case of physically handicapped children, test results on the Stanford Binet should be critically examined bearing in mind:—

1. That the test is mainly verbal, and that some physically handicapped children are handicapped either by an actual speech disability or by poor verbal knowledge.
2. That ~~is~~ presupposes a roughly common background of experience in school and home, whereas many physically handicapped children have been deprived not only of part or all of their schooling, but also of the background of everyday home experience familiar to the normal child.

### Performance Tests

A Performance Test such as Koh's Block Design does not involve use of words and it is not influenced by school knowledge.

It does however entail manipulation of concrete material *within a time limit*, and some types of physical disability, therefore, handicap a child in this kind of test.

### Non-Verbal Tests

Other tests have been devised, of which the best known is Raven's Progressive Matrices, which involve neither use of words, acquired knowledge, nor manipulation of material. In its present form,\* however, this test is not suitable for children with Mental Ages below approximately 10 and was therefore only used in special cases during the enquiry.

### Attainment Tests

An attainment test (e.g., in Reading or Number) measures the level which a child reaches in a school subject in relation to others of the same chronological age.

### Group Tests

Group Tests of Intelligence may be verbal or non-verbal. They form a rough means of comparing the level of two or more groups of children (e.g., the A and C classes in a primary school) and of assessing the performance of one child in relation to other members of the group. They should never be used, however, when an accurate assessment is required of an individual child. Many children, particularly duller children, are unable, through nervousness, poor concentration or other reasons, to do themselves justice on this type of test.

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\* The 1947 version was not available until after the completion of the Survey.



## SECTION III

### THE INVESTIGATION

This section outlines the procedure which was followed in order to obtain the information on which the subsequent findings and the recommendations were based.

#### A. SCOPE OF ENQUIRY

In the course of this Enquiry visits were paid to 3 Hospital Schools together with 2 Residential and 11 Day Schools under Local Authorities, comprising a total school population of 1,928 physically handicapped children.

It was agreed, at the suggestion of both the Central Council for the Care of Cripples and one of the largest voluntary organisations concerned, to omit consideration of residential schools under voluntary organisations on the grounds that their population is not typical, as there is an attempt to reject dull children before admission.

The Schools visited were situated in the following localities: Cheshire; Cornwall; Dorset; Essex; Liverpool; London; Manchester; Middlesex; Surrey, and were under the management of 10 different Local Authorities or Hospital Management Committees.

#### B. SELECTION AND EXAMINATION OF 9-11 YEAR AGE GROUP

At each school so far as possible all the children between the ages of 9 and 11 years were given a group test of intelligence. It was thus hoped to obtain a picture of the range of intelligence usual in a physically handicapped as compared with an ordinary School, and so to see the children referred as backward in relation to the rest of the population in schools for the physically handicapped.

The test used for this purpose was Cattell Scale 1A. It is a non-verbal test involving pictures instead of words, so that the effects of differences in background and school knowledge are minimised. The instructions are given verbally so that no reading is involved.



## C. SELECTION AND EXAMINATION OF BACKWARD CHILDREN

### (i) *Selection*

At each school the Teachers were asked to refer for individual examination the children whom they considered most backward in school attainment, for whatever reason, in relation to their fellow pupils of corresponding chronological age.

In this way it was hoped to see every child who constituted a really serious educational problem on grounds of backwardness, regardless of whether his difficulties arose from innate dullness or from other circumstances.

### (ii) *Examination*

All these children had a personal interview during which each was given an individual test of intelligence—The Revised Stanford Binet Intelligence Scale. Children who presented special problems in testing on the Stanford Binet were sometimes given in addition Raven's Progressive Matrices Test, 1938, or in the case of young children, the Merrill Palmer Scale and some items from the Pintner-Patterson Performance Scale.

Two further tests were also given to each child, though not all children succeeded in gaining scores—Kohs Block Design Test (a Performance Test of Intelligence), and Schonell's Vocabulary Test (a test of reading attainment). For further details of these tests see above Section II 'F', "Assessment of ability in physically handicapped children."

There was as a rule not time to attempt a standardised arithmetic test during the interview, but some children later completed the Southend Arithmetic Test, under school supervision, and information was always obtained from the Teacher and usually from the child about this subject.

It was felt that reading was the most important skill to examine, both because it provides the key to progress in so many other school subjects, and because backwardness in reading is less commonly explained than is backwardness in arithmetic, merely as a result of brief patches of absence. Moreover there has been considerable modification of thought in recent years on the teaching of number, and formal arithmetic of the type normally contained in tests has been shown to be of less educational value than was formerly believed.

In addition to these formal tests an attempt was made to gain some impression of the child, his background and any special interests or difficulties, through conversation, often, especially with younger children, starting off from 2 or 3 drawings he was asked to do—both free drawings, and of things he liked and disliked.



#### **D. SELECTION AND EXAMINATION OF OTHER PHYSICALLY HANDICAPPED CHILDREN**

1. For purposes of comparison the tests enumerated above were also given to the child next on the Register (in alphabetical order) to the child put forward as Backward, in approximately one third of the cases referred.

2. A very small group of other children were similarly examined who were put forward by Teachers as presenting some problem other than backwardness, but for whom an intellectual assessment was urgently required for practical reasons by the School. (See under Section IV.D.(ii)).

#### **E. REPORTS AND INFORMATION OBTAINED FROM TEACHERS**

Head Teachers of all Schools visited were asked to supply: —

1. Individual Reports on every child referred as Backward.
2. Factual information and personal opinion on the main problems raised by the terms of reference, and on any aspects of school organisation which seemed to have a particular bearing on these problems.

#### **F. SOCIAL HISTORIES OF CHILDREN EXAMINED**

In a number of cases facilities were given by Schools to follow up in some detail the social histories of the children referred, through contact with Welfare Workers, Almoners, Parents, etc. The psychologists were helped largely in this by a Social Worker who spent three months assisting with the Survey.

#### **G. ENQUIRIES TO LOCAL AUTHORITIES**

Six Local Authorities were approached for follow-up histories of children in their areas, who, on grounds of intellectual subnormality, had been rejected by a large voluntary organisation, for admission to any of its residential Schools. The Organisation concerned kindly supplied the names of these children.

These enquiries were not strictly within the original terms of reference, but were undertaken as a "pilot" for further investigation into a problem brought to notice during the course of the Survey.



## SECTION IV

### THE FINDINGS

This section gives the detailed results obtained which are then briefly summarised in Section V.

#### A. GROUP TEST RESULTS

Diagram 1 (see over), gives a graphical representation of the distribution of intelligence on a Group Test\* of 254 physically handicapped children between the ages of 9 and 11 years. This number includes all children of the selected age groups (with a few exceptions due to absence, etc.) in 15 different schools containing a total school population of 1,928 children.

According to the Group Test Results: —

- (i) 81 (approx. 31 per cent) of the children appear to be to a greater or lesser extent below average in ability. Of this number 24 (approx. 9 per cent) appear to be sufficiently inferior to be ascertainable as Educationally Sub-normal†
- (ii) 155 (approx. 61 per cent) of the children appear to be of average or high average ability.
- (iii) 18 (approx. 7 per cent) appear to be of superior or very superior ability, and should be suitable candidates at 11+ for a Grammar or Technical School type of education.

This means in effect that the intelligence of 230 of these physically handicapped children (approx. 91 per cent) will (when they are eleven), fall within the ordinary Grammar, Technical, or Modern School range of ability.

Moreover the figures for the lowest category (the bottom 9 per cent) are misleadingly high and not in agreement with the results of individual testing. This is partly due to the limitations of the test itself, which fails to discriminate adequately between scores at the lower levels, and partly to the fact that dull children generally fail to do themselves justice in group tests. Some of the children failed to attempt this test at all and could therefore be given no score. The Scale used (unlike the Stanford Binet) was a timed test. Children with certain physical disabilities were, therefore, specifically handicapped, and of 41 known cases who gained scores below 70 (Stanford Binet I.Q. approximately 80), 11 were spastics (27 per cent). (See Table I below).

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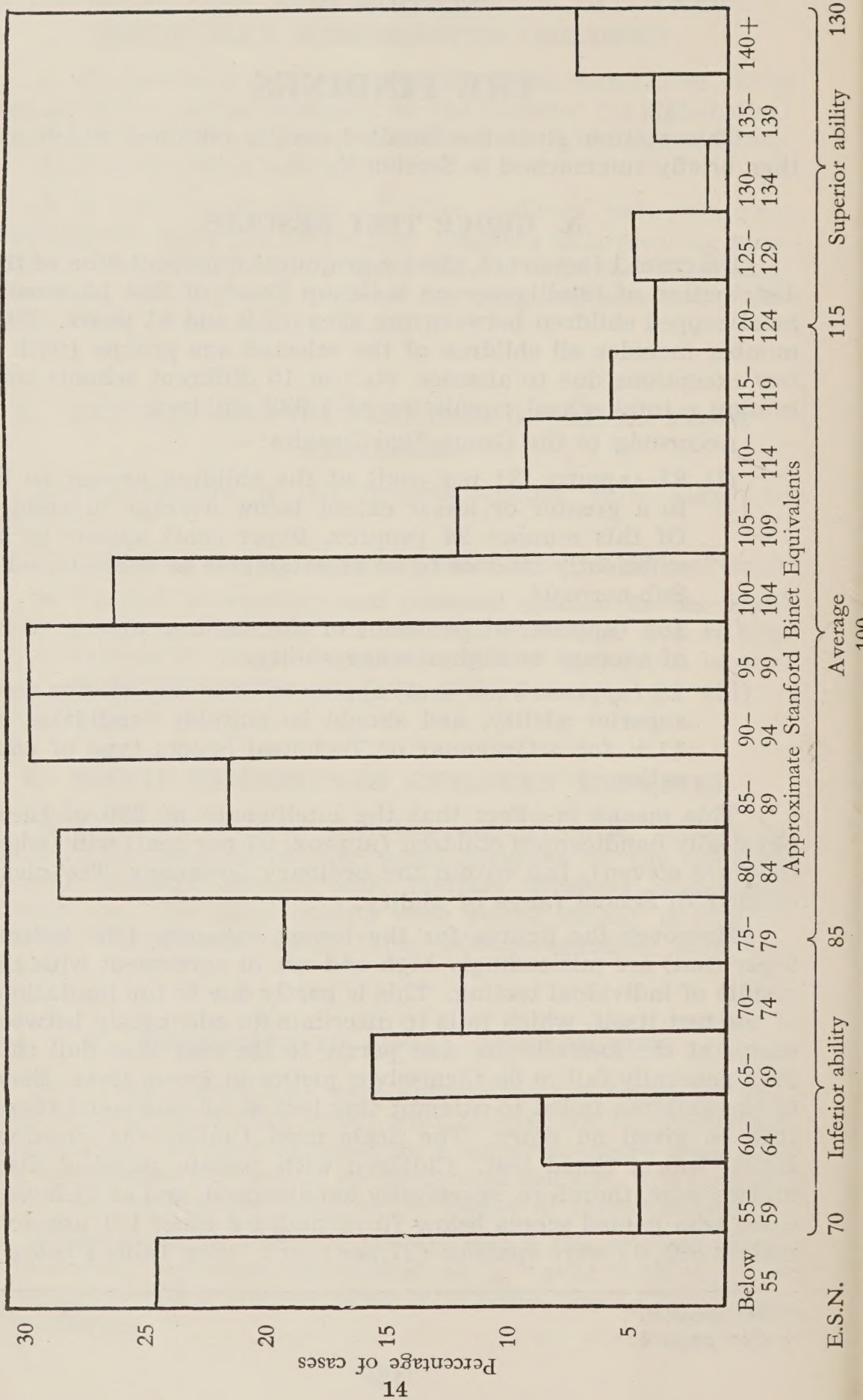
\* See page 9.

† See page 4.



GRAPH 1

**DISTRIBUTION OF INTELLIGENCE AMONGST PHYSICALLY HANDICAPPED CHILDREN Aged 9-11 Years**  
 Score on Cattell Test IA. (Standard Deviation 24). (254 cases).





**\*TABLE I. Disabilities as recorded on Medical Record Cards of children gaining scores below 70 (equivalent to Stanford Binet I.Q. approximately 80) on Group Test. (41 known cases)**

|                      |     |     |     |     |     |     | No. found |
|----------------------|-----|-----|-----|-----|-----|-----|-----------|
| Spastic              | ... | ... | ... | ... | ... | ... | 11        |
| Heart Diseases       | ... | ... | ... | ... | ... | ... | 10        |
| Tuberculosis         | }   | ... | ... | ... | ... | ... | 3 each    |
| Debility             |     | ... | ... | ... | ... | ... |           |
| Epilepsy             | }   | ... | ... | ... | ... | ... | 2 each    |
| Congenital Deformity |     | ... | ... | ... | ... | ... |           |
| Meningitis           | }   | ... | ... | ... | ... | ... | 1 each    |
| Ant. Poliomyelitis   |     | ... | ... | ... | ... | ... |           |
| Muscular Dystrophy   |     | ... | ... | ... | ... | ... |           |
| Hydrocephalus        |     | ... | ... | ... | ... | ... |           |
| Microcephalus        |     | ... | ... | ... | ... | ... |           |
| Chorea               |     | ... | ... | ... | ... | ... |           |
| Anæmia               |     | ... | ... | ... | ... | ... |           |
| Scoliosis            |     | ... | ... | ... | ... | ... |           |
| Encephalomyelitis    |     | ... | ... | ... | ... | ... |           |

*\* It may be that the inclusion of test results obtained from spastic children in this and other samples considered in the Survey, has in one sense distorted the general findings, since in the present state of knowledge it is often difficult to estimate the amount of damage to learning ability and potential educational capacity. In view of the specialised research being undertaken elsewhere, consideration of spastic children would have been omitted from this enquiry, were it not for the fact that they proved to be the group most commonly referred as backward by teachers in P.H. Schools. But any results where spastics are concerned are offered here with greater reserve than those regarding children with other disabilities.*



## **B. INDIVIDUAL TEST RESULTS**

144 children were referred by teachers as the most markedly backward in their respective schools, representing approximately 11 per cent of the total population in the schools from which they were selected.

The individual examination given to these 144 backward children was also given, for purpose of comparison, to 59 children selected (as indicated in Section IIID) from the remainder of the school population. 18 other children were examined at the special request of teachers, so that in all 221 children were individually examined during the course of the Survey.

### **(i) The Children Referred**

Of the 144 children referred as backward, 81 were boys and 63 were girls. There are in fact more physically handicapped boys than girls in the population. Moreover most children whom teachers consider backward are bad readers, and girls on the whole are better readers than boys. Backward girls are also usually more amenable than boys to school discipline, and, therefore, from both points of view, are less likely to stand out as "problems" to the class teacher.

### **(ii) Disability**

The following Table gives a list of the physical disabilities from which children suffered who were referred as backward.



**TABLE II. Disabilities of Backward Children (144 cases) as recorded on Medical Record Cards**

|                                    | No. Found | % Found    |
|------------------------------------|-----------|------------|
| Heart ... ..                       | 36        | 25         |
| Tuberculosis ... ..                | 22        | approx. 15 |
| Ant. Poliomyelitis ... ..          | 19        | „ 13       |
| Muscular Dystrophy ... ..          | 9         | „ 6        |
| Accidents and Injuries ... ..      | 8         | „ 5        |
| Debility ... ..                    | 6         | „ 4        |
| Spina Bifida ... ..                | 4         | „ 3        |
| Epilepsy ... ..                    | 4         | „ 3        |
| Osteomyelitis ... ..               | 4         | „ 3        |
| Talipes ... ..                     | 3         | „ 2        |
| Unclassified ... ..                | 3         | „ 2        |
| Kyphosis ... ..                    | 2         | under 2    |
| Bronchitis ... ..                  | 2         |            |
| Meningitis ... ..                  | 2         |            |
| Chorea ... ..                      | 2         |            |
| Congenital Venereal Disease ... .. | 2         |            |
| Perthes Disease ... ..             | 2         |            |
| Pseud. Coxalgia ... ..             | 1         |            |
| Hæmophil ... ..                    | 1         |            |
| Nephritis ... ..                   | 1         |            |
| Congenital Disc. Colon ... ..      | 1         |            |
| Tics. ... ..                       | 1         | approx. 4  |
| Hermaphrodite ... ..               | 1         |            |
| Deformity ... ..                   | 1         |            |
| Spastics ... ..                    | 7         |            |

Table III shows how the five commonest disabilities amongst these backward children were distributed amongst three other groups of physically handicapped children (see also Graph 6).



**TABLE III. Distribution of Five Disabilities amongst Four Groups of Physically Handicapped Children:**

- (a) Children not selected as backward. (59 cases).
- \*(b) Total population of one large Day School. (128 cases).
- (c) All children referred by teacher as backward. (144 cases).
- (d) Children referred as backward who were found to be very dull. (I.Q. under 70).

|                       | (a)<br>Unselected<br>Children<br>(59 cases) | (b)<br>Total of one<br>physically<br>h'ndicapped<br>School (128) | (c)<br>Backward<br>Children<br>(144) | (d)<br>Dull<br>(E.S.N.) and<br>Backward<br>(39) (Stan-<br>ford Binet) |
|-----------------------|---------------------------------------------|------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------------------------|
| Spastics ...          | 10%                                         | 11%                                                              | 25%                                  | 31%                                                                   |
| Hearts ...            | 29%                                         | 41%                                                              | 16%                                  | 21%                                                                   |
| Tuberculosis ...      | 15%                                         | 12%                                                              | 14%                                  | 5%                                                                    |
| Polio. ...            | 17%                                         | 5%                                                               | 7%                                   | 5%                                                                    |
| Muscular<br>Dystrophy | 0%                                          | 0%                                                               | 5%                                   | 15%                                                                   |

The children in the first column are those who were not considered markedly backward, whereas those in the last column, were both considered backward by the School and found on testing to be educationally subnormal.

It will be noted that the incidence of spastics and of muscular dystrophy cases is higher, and of tuberculosis and anterior poliomyelitis lower, in the last than the first group (See however, note on Spastics, Page 18).

**(iii) Distribution of Intelligence**

Table IV overleaf, gives the distribution of intelligence on the revised Stanford Binet Scale amongst these children referred for backwardness, and Table IVa gives for purposes of comparison, corresponding information about children who were selected from the remainder in each school and given a similar individual examination. It will be noted that these results are based on the scores on a Verbal Test, and, as shown in Section IV(c), rather more backward physically handicapped children show retardation when measured on a Verbal than on a Performance Scale of Intelligence, whilst distinctly fewer show superior

\* This group shows a large percentage of cases of heart disease. Some Authorities (though only one of those visited during the enquiry) exclude heart cases from ordinary P.H. Schools, so that the distribution shown here would not be typical of P.H. Schools in all areas.



ability. These results indicate that of the children referred as backward:—

- (a) 39 are of very inferior intelligence, representing 27 per cent of the children considered backward and 3.25 per cent of the total school population from which they were referred (3 per cent of the group not referred as backward are of this level).

These 39 children would all be ascertainable as educationally subnormal; at least 4 of them are of so limited ability that they would, if physically fit, be excluded from school on grounds of ineducability, whilst 5 others are border-line cases in this respect. The results of this Survey suggests that between 3 and 7 per cent of the total physically handicapped school population are probably intellectually incapable of benefiting from formal education.

- (b) 56 are of rather inferior intelligence, representing 39 per cent of the children referred as backward and 4.67 per cent of the school population from which they are drawn. (The comparable figure for the group not referred as backward is 22 per cent).

These are children who, were they not physically handicapped, would as a rule be provided for in ordinary schools—the less able preferably in Special Classes.

- (c) 49 children are of average or above average intelligence, representing 34 per cent of the children referred and 4.09 per cent of the school population from which they were drawn. The comparable figure for the group not selected as backward is 76 per cent.

It is evident, therefore, that of the 11 per cent of children in P.H. Schools who appear to present a problem to their teachers on grounds of backwardness:—

- (a) About 3 per cent might be expected, owing to innate limitations of ability, to be markedly backward, including between .3 and .7 per cent probably unsuitable for formal education.

It may be noted that the 1932 Survey of the Intelligence of Scottish children carried out by the Scottish Council for Research in Education gives 3 to 4 per cent of children with Intelligence Quotients under 70.

- (b) 4 per cent might be expected to lag slightly behind their more able fellows, although many children of a similar level (who in fact form at least 22 per cent of the whole physically handicapped school population)



BACKWARD CHILDREN. DISTRIBUTION OF INTELLIGENCE (144 cases)

TABLE IV

|        | Under<br>50 | 50<br>54 | 55<br>59 | 60<br>64 | 65<br>69 | 70<br>74 | 75<br>79 | 80<br>84 | 85<br>89 | 90<br>94 | 95<br>99 | 100<br>104 | 105<br>109 | 110<br>114 | 115<br>119 | 120<br>124 | 125<br>129 | TOTALS   |
|--------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|------------|------------|------------|------------|------------|----------|
| Boys   | 4           | 2        | 2        | 5        | 8        | 13       | 4        | 11       | 10       | 8        | 6        | 3          | 2          | 3          | 1          | 0          | 1          | = 83     |
| GIRLS  | 0           | 3        | 2        | 8        | 5        | 6        | 14       | 8        | 4        | 3        | 3        | 3          | 1          | 1          | 0          | 0          | 0          | = 61     |
| TOTALS | 4           | 5        | 4        | 13       | 13       | 19       | 18       | 19       | 14       | 11       | 9        | 6          | 3          | 4          | 1          | 0          | 1          | = 144    |
| %      | 2.77        | 3.47     | 2.77     | 9.0      | 9.0      | 13.19    | 12.5     | 13.19    | 9.72     | 7.63     | 6.25     | 4.16       | 2.15       | 2.77       | .69        |            | .69        | = 99.95% |

Defec-  
tive

Ascertainable  
as educationally  
sub-normal

Inferior Intelligence

Average  
Intelligence

Superior  
Intelligence

CHILDREN NOT SELECTED AS BACKWARD. DISTRIBUTION OF INTELLIGENCE (59 cases)

TABLE IVA

|        | 60<br>64 | 65<br>69 | 70<br>74 | 75<br>79 | 80<br>84 | 85<br>89 | 90<br>94 | 95<br>99 | 100<br>104 | 105<br>109 | 110<br>114 | 115<br>119 | 120<br>124 | 125<br>129 | 130<br>134 | 135<br>139 | 140<br>144 | 145<br>149 | TOTALS   |
|--------|----------|----------|----------|----------|----------|----------|----------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|----------|
| Boys   | 1        | 1        | 0        | 3        | 5        | 2        | 6        | 4        | 2          | 2          | 1          | 4          | 1          | 1          | 0          | 1          | 0          | 1          | = 35     |
| GIRLS  | 0        | 0        | 1        | 2        | 2        | 2        | 3        | 4        | 5          | 2          | 2          | 1          | 0          | 0          | 0          | 0          | 0          | 0          | = 24     |
| TOTALS | 1        | 1        | 1        | 5        | 7        | 4        | 9        | 8        | 7          | 4          | 3          | 5          | 1          | 1          | 0          | 1          | 0          | 1          | = 59     |
| %      | 1.69     | 1.69     | 1.69     | 8.47     | 11.86    | 6.78     | 15.25    | 13.56    | 11.86      | 6.78       | 5.08       | 8.47       | 1.69       | 1.69       | —          | 1.69       | —          | 1.69       | = 99.94% |

Ascertainable  
as educationally  
sub-normal

Inferior  
Intelligence

Average  
Intelligence

Superior Intelligence



are making satisfactory progress (some unselected children of this level appeared amongst the top half-dozen on their respective class lists).

- (c) 4 per cent show no intellectual inferiority to account for their backwardness.

Hence the problem of the backward child is by no means confined to the problem of the very dull, who form a comparatively small group in the physically handicapped school population. Innate limitations of ability are an important factor in poor school attainment, but clearly cannot provide the whole explanation. Two main questions, therefore, arise: —

- (1) What other factors are responsible for backwardness, and can they, unlike poor ability, be remedied or prevented?
- (2) What is the best kind of educational treatment for the small group of children (between 3 and 4 per cent) who are educable, but gravely, and so far as we know irremediably, handicapped by poor natural ability?

#### (iv) Backwardness in Specific Skills

Many children show serious backwardness in one or two skills rather than in all-round level of school attainment.

##### (i) Reading

Table V (over) shows the results obtained on a Reading Test (Schonell) by children referred as backward. For purposes of comparison Table Va gives similar information about the unselected children.

The results of the Reading Test were expressed as a "Quotient," i.e., the ratio  $\frac{\text{Reading Age} \times 100}{\text{Chronological Age}}$ . The first column shows the percentage of children having Reading Quotients at each level; the second column gives corresponding figures for the results of the Verbal Intelligence Test.

**TABLE V. BACKWARD CHILDREN (144 cases)**

|                            | Reading<br>% Found | Intelligence<br>% Found<br>(Verbal Test) |
|----------------------------|--------------------|------------------------------------------|
| Below 70 Very Backward ... | 62                 | 27                                       |
| 70-84 Backward ...         | 20                 | 39                                       |
| 85-99 Low Average ...      | 11                 | 24                                       |
| 100-114 High Average ...   | 7                  | 9                                        |
| 115-129 Superior ...       | —                  | 1                                        |
| 130+ Very Superior ...     | —                  | —                                        |



**TABLE V (a). CHILDREN NOT SELECTED AS BACKWARD**  
(59 cases)

|                            | Reading<br>% Found | Intelligence<br>% Found<br>(Verbal Test) |
|----------------------------|--------------------|------------------------------------------|
| Below 70 Very Backward ... | 31                 | 3                                        |
| 70-84 Backward ... ..      | 29                 | 22                                       |
| 85-99 Low Average ...      | 16                 | 36                                       |
| 100-114 High Average ...   | 16                 | 24                                       |
| 115-129 Superior ... ..    | 4                  | 12                                       |
| 130+ Very Superior ...     | 4                  | 3                                        |

These results show: —

- (a) That backwardness in reading is very general amongst all physically handicapped children (Tables V and V(a)) but is more marked amongst those whom the teachers referred for examination and was probably the most common reason for a child being selected for examination (Table V only).
- (b) The majority (82 per cent) of the backward children have a reading level more than 15 per cent below the average for their chronological age. 46 (32 per cent) of 142 backward children examined in this subject were in fact non-readers.

It is also clear, however, that most of these children are more backward in reading than they are in general mental development, i.e., they are reading "below capacity." (62 per cent of the backward children were more than 20 per cent retarded in reading in relation to their Mental Age). This is further illustrated in diagrams 3 and 4 (over).

Backwardness in reading provided the key to much retardation in general school attainment.

As a rule it appeared to be due in part to absence or poor teaching during the first few years of school life as, when once the fundamentals are mastered, Reading, unlike Number, is not usually much affected by short patches of later absence.

Of the 49 intelligent but backward children, 16 showed specific disabilities (visual or auditory) which in most cases appeared to have handicapped reading progress, but of which class teachers were almost always unaware. Some of these children, had, as a result, adopted a permanently discouraged and defeatist attitude towards the whole subject.

The value of brief but intensive individual coaching, designed to offset such difficulties, was seldom appreciated. There was an impression even amongst a few Hospital as well as Day School teachers that individual teaching should be reserved



for the 5 to 7 year-olds, and that older children "ought" to be able to work on their own or with a class.

A number of cases were seen of older children of superior intelligence who could not read. These children were not only handicapped in all their school work, but deprived of a source of interest from which intellectually they were well able to benefit. Some of them could have been taught with an extremely brief period of individual help, as was occasionally proved when for example, they were moved to another ward or class employing more individual techniques. Others, a little more advanced, would have benefited, especially in Hospitals and Residential Schools, from the provision of more attractive and very simple books to read in their own time.

38 per cent of the backward children were reading more or less up to or "above capacity," i.e., Mental Age. These children were mainly of slightly inferior ability, but insufficiently dull to be recognised as such, and therefore often received little credit for achievement which was the fruit of much hard labour both on their own part and on that of their teachers.

In a number of cases there appeared to be an over-emphasis on phonic methods to the exclusion of whole word recognition. Amongst examples of successful remedial work was that being carried out in an under-staffed Hospital School, where the children had little or no class work as a group. There were short periods of individual coaching and for the rest of the time each child worked either alone, or, more often, with his neighbour, at an assignment involving snap cards, word matching, and other aids to word recognition as well as formal reading.

## (ii) *Number*

Backwardness in Number was general amongst both children referred as backward and unselected children.

No subject is so often affected as arithmetic by even brief patches of absence or by emotional pre-occupation, and frequently both factors are operative in the case of physically handicapped children.

The individual examinations in Arithmetic suggested that many of the children could have been helped by the use of diagnostic tests to ascertain just which stage they had missed or failed to understand. Again and again children were reported to be doing quite advanced work in class, e.g. what one girl worriedly described as "Long Decision," but always making "silly" mistakes. When examined carefully these children were found to be entirely ignorant or confused about elementary principles such as "Borrowing" ("You can't borrow if there's a nought in the next column") or even subtraction ("You always take the top line from the bottom.")



Small misunderstandings of this kind often made the children frustrated and hopeless about their ability to do Arithmetic of any kind. The only answer in these cases was to go back to fundamentals and make sure that they were really understood.

(iii) *General Consideration*

The majority of backward children with fair or good intelligence, therefore, required further individual help to overcome particular difficulties. There were also a number of duller children whose general output of work was much below even their limited capacity. Children of this type were often failing because the teaching seemed too abstract. Most backward and physically handicapped children require very concrete methods more allied to those used in the best special classes and schools for E.S.N. children—not only by reason of dullness but also because of previous lack of opportunities for concrete learning (See Section IV.B.4, below). Children normally learn to read, count, and write only after several pre-school years of everyday dealing with “things.” The necessity for this was often overlooked, and children deprived of this kind of experience were referred as backward because at 5 or 6 years they lacked any conceptual knowledge. The remedy seemed to lie firstly in propaganda, not only amongst teachers but also amongst medical staff in hospitals, and parents of children living at home, on the importance of providing opportunities at the pre-school and Infant stage for seeing and manipulating concrete material. Secondly, there was a need, in many cases, for an extension of the Infant School period into that normally occupied by the Junior stage.

A sufficiently realistic eye was not always kept on the child's future. For example, some dull and handicapped children were being given abstract knowledge of advanced arithmetic of which, owing to their mental or physical limitations, they are unlikely to make any effective use when school is over.

(v) **Maladjustment and Emotional Difficulties**

In at least 82 cases (57 per cent of the children referred as Backward) emotional factors appeared to play a major or minor part in contributing to their retardation.

About 15 of the children seen were so seriously disturbed that it appeared unlikely that any modification in handling at school or home would enable them to solve their difficulties without psychiatric treatment, and a number of others, particularly amongst the youngest age groups, would also have benefited from attendance at a Child Guidance Clinic.

69 (48 per cent) appeared to have reacted mainly by a negative withdrawal from their difficulties whilst 13 (9 per cent)



had expressed their own problems in positive anti-social conduct towards their environment.

Of the 49 backward children of good intelligence, emotional factors were a primary or contributory cause of backwardness in at least 39 cases.

Moreover it became increasingly clear as the Survey progressed that although teachers were asked to refer backward children, there was a tendency on the part of most schools (resisted as firmly as possible by the psychologists) to refer children who were not regarded as educationally backward but only as showing emotional difficulties. In fact it seemed fairly clear, and was sometimes stated by teachers, that backwardness in itself was seldom a major problem to the school unless it was complicated by apparent personality difficulties in the child concerned.

Twelve of such non-backward children were examined separately as there seemed particularly cogent reasons for obtaining a psychological assessment, but their test results are not included with those of the group referred as backward.

All the psychologists, coming to the Survey after experience of interviewing many emotionally disturbed but as a rule physically normal children, were impressed by the frequency amongst physically handicapped children of such symptoms of insecurity as lack of confidence, extreme shyness, and ready anticipation of failure. Their feelings of personal inadequacy often appeared to handicap their whole output of work in school. This finding was largely confirmed by teachers' reports, although the symptoms were sometimes interpreted as "apathy," "sullenness" and "resentment of correction." By far the most frequent single comment from teachers on a backward physically handicapped child was to the effect that "he has no concentration or memory."

The number of children in whom either psychologists or teachers found evidence of more positive aggressive reactions, e.g., stealing and bullying, was small compared with that amongst physically normal but disturbed children. An exception to this general observation was the high incidence of reportedly uncontrolled outbursts of temper, amongst both children and adolescents.

Were there any clues as to why physically handicapped children should so often be handicapped in their intellectual functioning by emotional difficulties?

First of all, although it may have sometimes been wishfully stated that a child "doesn't notice" or "gets used to" his disability, it was quite clear that this was rarely if ever the case. In quite obvious ways he feels different from other children. Even when a good initial adjustment is made to school



life, this feeling is usually reawakened with the self-awareness of adolescence. Nor is it confined to brighter, so-called "sensitive" children.

Mary S., aged 7 years, Intelligence Quotient 68, with a congenitally dislocated hip, was "very upset" after return from hospital, and "kept looking at herself in the mirror all the time."

Alfred H., age 13, was of ascertainably sub-normal ability and his spasticity handicapped both speech and movement. Asked what he did out of school, he replied, "I gets proper fed up. There's no other boys in our street who can't run; sometimes there's two boys playing and one says 'let's ask Alfred'—but the other says, 'Oh! don't mind *him*, he can watch'!" His handicap had given Alfred a rather comic appearance and squeaky, disjointed speech, and he had probably been teased by other children. But he enjoyed school and had made a very successful adjustment, adopting the role generally of the "funny man" who could therefore be laughed at, yet retain his pride. Occasionally, however, he showed violent temper—his underlying hostility and fear of others broke through his defensive role. In fact, many of the children with the most uncontrolled temper outbursts were those who had made successful, but sometimes quite artificial, adjustments to everyday social life.

Vernon H., aged 13, well up to average for his age in his general mental development, but a dwarf, became the bright "baby boy," and greeted the psychologist with a wide-eyed smile and the enquiry "Me do test?"

Many children felt frustrated and hostile to real or imagined attackers. Young children show little chivalry to the handicapped. "He hasn't many friends," said the mother of Stanley, aged 10, "and when the other children call after him 'bandy legs' and 'wooden leg' he gets very upset." Bob, a spastic, aged 9, was reported as entirely apathetic, perhaps defective and untestable. "You won't get far with Bob." He was in fact of average intelligence and his preoccupying emotion was of quite frightening hostility towards an enemy who "swiped him" and whom he could never attack, "You can't get your own back; if I could he wouldn't be alive."

Physically handicapped children have few opportunities of expressing normal aggressive feelings in activities with "things" or in games with other children.

As one Head Teacher put it, the physically handicapped boy "is afraid of being hurt, so gets a blow in first"—in other words, he is often defensive in his apparent hostility to reproof or correction.

In short, most physically handicapped children probably start with some feelings of inadequacy, frustration, and often fear in relation to fitter children. But with wise handling, and



compensatory outlets these feelings are often overcome. It is usually possible to enable a child to obtain a sense of achievement in some particular sphere, occasionally even a physical sphere, as in the case of a boy unable to walk at all who had won medals for swimming. Some severely handicapped pupils were interviewed who seemed to have made a thoroughly realistic and satisfactory adjustment both to their own handicap and to the needs of the community.

The evidence suggested that the child who seldom managed to adjust satisfactorily, and who showed the most severe emotional difficulties, was one who, in addition to his actual handicap, or to any social difficulties with other children, had a much more deep-rooted and long standing sense of insecurity arising in the first place from a defective relationship with his parents. This conclusion agrees with what is known about causes of maladjustment in physically fit children, but there are many additional factors which accentuate such difficulties for the crippled child.

Insecure but physically fit children sometimes have fantasies of being "sent away" by their parents because they are naughty or unloved. But with many crippled children this fantasy becomes reality and it was clear that young children are often deeply disturbed for this reason by being sent to hospital, quite apart from other strange or frightening elements in hospital life.

The cases studied suggested that this experience is most often upsetting to the child when it occurs at a very early age.

Of 13 children whose parents described particularly marked abnormalities of behaviour which had first appeared after a period in hospital, 10 had been between the ages of 18 months and 4 years when they had left home.

The two symptoms most frequently mentioned were irrational fears and a return to babyish habits:

e.g. "He had changed completely."

"Her mind now doesn't seem to grow with her years."

"She was cowed down, and kept screaming 'Sorry, sorry!' as though she had done something for which she might be punished."

The feeling of being "sent away" by his parents might be accentuated by such circumstances as the birth shortly before of a young brother or sister, and the lack of visiting from his parents after his departure. It was interesting to note that whilst only 15 of 34 known cases of the referred (backward) children had been regularly visited whilst in hospital, 21 out of 25 unselected (i.e., reasonably satisfactory) children had had regular visits.



A further serious reason for the crippled child's insecurity is that not infrequently he not only *feels* unwanted but is in *fact* rejected by his parents, sometimes in favour of fitter children. Some of these parents show a merely negative lack of affection and reassurance, sometimes they are superficially over-protective; sometimes they resort to nagging and criticism in an attempt to "change" for example, a backward or difficult child. There were also a number of cases where there were reports of material neglect and a few of physical cruelty. It seemed that a number of mothers had wished figuratively, although only one had done so literally, to throw the crippled baby out of the window, through some usually unconscious feeling of personal guilt or social disgrace at the possession of a physically imperfect child. The Social Worker would be repeatedly assured "all my other children are quite all right." This is not of course to deny that there are many well-loved and sometimes over-protected physically handicapped children, but they are not on the whole those whose school backwardness is rooted in emotional difficulty. Nor is it to deny the fact (of which the child is usually well aware) that severe physical disability makes him a nuisance in a busy household—but this practical difficulty did not account for a number of entirely mobile and lightly handicapped cases which parents had attempted to dispose of to Institutions or retain in hospital after termination of treatment.

Practical difficulties, any imagined social stigma and deeper feelings of guilt may all affect the parents' attitude so that the child feels unwanted in his home. If he is aware that parents make unfavourable comparison with a brother or sister his confidence will be particularly undermined. For example, George J., aged 12, Intelligence Quotient 101, though sometimes doing quite good work in school, immediately tore up the painting, essays, etc. which he had produced. It transpired that he had a young brother Peter at a Central School and had formed a belief—strengthened by his Mother's attitude—that Peter was fit and could do everything well and he himself could do nothing right and therefore he destroyed his own "failures."

These comments on emotional disturbances in physically handicapped children deal mainly with matters on a conscious level. Study of the causes of emotional difficulties in physically normal children also suggest that removal from home, change of handling, etc., may prevent children from forming good human relationships, though they have forgotten the original experiences which led them to adopt such an attitude of passive or active hostility.

Of the 49 intelligent but backward children 39 showed evidence of emotional difficulties.



In 28 of the cases (probably by no means the whole number) factual evidence was obtained from School, Almoner or Social Worker, that parental relationships were inadequate or unsatisfactory. In a further four cases the child himself volunteered information indicating unhappiness and friction at home, so that at least 32 of the 49 cases (65 per cent) could be considered to be adversely affected by home circumstances. These circumstances included, in addition to homes merely lacking a Mother, and four homes with separated parents, two Institutionalised children, five other children abandoned by their own parents, and five from homes about which the N.S.P.C.C. or other social workers had brought complaints or court charges of cruelty or neglect.

The ways in which a child's emotional preoccupation and difficulties could 'block' his intellectual functioning were most clearly seen amongst the youngest cases examined in hospitals, and in the Infants' Departments of P.H. Schools.

Teachers in Infants' Departments are particularly often called upon to deal not only with the children themselves but with their parents.

Some teachers showed much understanding of the childrens' emotional difficulties; others lacked the imagination to see life from the view-point of a disabled child, although they might have been competent teachers of fitter children. But a number, as one said, "just hadn't thought" and appeared genuinely interested and surprised to learn that a child might be pre-occupied with his own difficulties, connected for example with his illness or his family and that he might too, like a pre-occupied adult, be therefore unable to concentrate on the immediate job in hand. A number of teachers stated that they would appreciate more adequate information at Training Courses etc. on the emotional problems of physically handicapped children.

Mothers will often come to complain, to enquire and to despair about their children to an understanding teacher, but this is especially true of harrassed parents of a crippled and backward child. Psychologists were asked by such teachers not only how to deal with the children in class but also "What shall I say to Mrs. Blank—what shall I tell her to do with Johnnie?"

A typical, though by no means the most serious problem for one Infants' teacher was that of John S., aged 6½. John had started school late; he had been hospitalised for much of his early life and hence lacked not only the rudiments of school knowledge but the everyday experience familiar to the normal child. He had not learned from experience proper control of his own body (by climbing, balancing and running etc.), nor how to manipulate "things." Moreover he was rather below average for



his age in innate intellectual ability. His class teacher wisely allowed him to spend much time in activities normal to the pre-school age—the stage which he had largely “missed” owing to his handicap. But much of the value of her work was being daily undone by his well-meaning, respectable but rather ambitious parents. Disturbed already by his physical defect, they could not tolerate the idea that he might also be backward (or in their parlance, “a bit mental”), so they filled the time after school with extra lessons to ‘make up’ for lost time, and John was constantly urged to conform even in his playtime to a pattern of behaviour for which he was neither emotionally nor intellectually yet ready. In the face of constant criticism he gradually withdrew into himself rather than make further unsuccessful efforts to reach the standard required of him and so face disapproval from his parents. This type of reaction, defeat and withdrawal from effort or self expression of any kind, might later become the “apathy” or “sullenness” of the senior school. It is merely one of many different types of example which could be given of the less extreme and remediable kinds of parental mishandling which nevertheless will later swell the number of problem and backward children in P.H. Schools.

Many parents, and possibly some teachers too, appear to feel very strongly that the physical reality will somehow become more tolerable, if the child’s level of scholastic achievement is improved.

It is undoubtedly true that cultivation of interests and hobbies and acquirement of knowledge may be of special value to the handicapped child. But one has to remember that this cannot be gained by endeavouring to cram or force a child beyond the level of either his innate capacity or his emotional condition. For example, Henry, aged 10, with a mental capacity of 7 could not be helped, despite his parents’ efforts, by attempting to arouse interests and to give him knowledge which, although within the range of normal ten-year olds, was quite beyond the mental capacity of this particular boy. Moreover, the parents’ stress on the child’s scholastic progress bore no relation in this, and some other cases, to the child’s probable expectation of life. This must be viewed by both parents and teachers as a reality situation if the child is not to be subjected to unnecessary strain, and deprived of satisfaction in the limited spheres of activity which remain within his physical and intellectual capacity.

It seems desirable not only that every teacher should have access to expert advice and training, but that when possible, direct help should also be available to the parents of young and crippled children.



The provision of further vacancies for physically handicapped children in Child Guidance Clinics is a partial but by no means complete answer to the kind of problems which were discovered in this enquiry. The purpose of Clinic treatment for most children is to help both child and parent to make a more satisfactory adjustment within the family setting. There are, therefore, special difficulties in attempting to treat children in residential schools who have had to support the loss of home and parents, a situation which applies to very many physically handicapped children. But the application of Child Guidance methods to physically handicapped children, even those living at home, is a comparatively new field, and one which may not prove at all easy, particularly because the emotional problems of physically handicapped children are so frequently rooted in a very difficult reality situation which cannot be modified.

It is also important to remember that Clinic treatment is primarily remedial, and that the discovery of preventive measures is an even more important task for those who, in any sphere—whether home, school or hospital—are concerned with the care of physically handicapped children.

#### **(vi) Other General Causes of Backwardness**

It is seldom or never possible to designate a single 'cause' of backwardness. Nearly all cases are due to a number of unfavourable factors. Those which seemed to occur most frequently amongst the children examined were as follows:—

(1) **Inferior Intelligence** (*see above*).

(2) **Emotional Difficulties and Maladjustment** (*see above*).

(3) **Absence from and Change of School.** Many children had had seven or eight changes of school; the average number of schools amongst the intelligent group of backward children was four per child. (It must be remembered that this group included a large number of children under 7). In most areas physically handicapped children are dealt with in all-age schools so that there are no automatic transfers at 7 or 11+. Sometimes the administrative arrangements, probably owing to difficulties, seemed rather arbitrary. For example, in one district visited, Infants and Senior Girls were housed together, whilst Juniors were in a separate school some distance away.

Evidence suggested that there were often objections to transferring a physically handicapped child at 7 or even later to a separate Junior School. Firstly, he had in most cases arrived late at the Infant Department, deprived of much normal experience. (Most of the children seen had begun school at 5½, but many at 6, and some not until 10 or 11). It was even more



essential for him than for a normal child to work through the early stages (see below) before he began formal lessons, which in some cases it might therefore be inappropriate to start until 7 or 8 years of age. Secondly, he often found both the social and actual physical adjustment to school very difficult; it then added one more unsettling experience to his life if, just when at 7 he had begun to get used to the situation, he was transferred to a new environment with new teachers and new methods—usually of a more formal and less individual kind. An arrangement in one school seemed to be working very happily where the new arrivals and the youngest age-groups were housed in a separate “annexe” on the lines of a Nursery Class, but as part of the main school to which they moved on for more formal training only when they seemed ready to do so.

(4) **General Deprivation of Experience.** The normal child of 2 to 5 years, though not usually yet at school, is learning every day by personal *experience*. Most of this early experience is through bodily activity; firstly, he learns by practice to control the clumsy movements of his limbs until he achieves some finer co-ordination of hand and eye. Secondly, he explores the nature and possibilities of concrete “things” in his environment. At the same time he is practising and perfecting speech in his desire to communicate with the adults to whom he is attached in his family.

Now all these opportunities and incentives for experience are to a lesser or greater extent denied to the child who is physically handicapped, and this is especially true if he is in Hospital for a considerable period.

41 backward but intelligent children referred had been separated from their mothers at an average age of 3.10 years—17 of them before the age of 4 years—which meant that some of them had been deprived of any kind of normal everyday experience almost from birth. Many had in this sense much “leeway” to make up before they could function at their potential intellectual level.

Some children often appeared stupid because much that they were told, or asked to do, did not carry the meaning that it would be to a child with a normal home background. For example, after being read “Polly put the kettle on” the children were asked to illustrate the Nursery Rhyme by a drawing. “But I can’t draw a horse” objected one little girl, and enquiry elicited that the only mental picture that the verse had given her was of “Polly” the cart horse, which worked in the hospital grounds.



## C. ASSESSMENT OF PHYSICALLY HANDICAPPED CHILDREN

Table VI below gives the distribution of scores of the 144 backward children on a Performance Test of Intelligence (Koh's Block Design). Table VI(a) gives corresponding information about the unselected children. The results are expressed as a "Performance Quotient," i.e.,  $\frac{\text{Performance Age}}{\text{Chronological Age}} \times 100$ .

**TABLE VI. BACKWARD CHILDREN (144)**

|                            | Performance Test<br>% Found | Verbal Test<br>% Found |
|----------------------------|-----------------------------|------------------------|
| Below 70 Very Backward ... | 35                          | 27                     |
| 70-84 Backward ...         | 25                          | 39                     |
| 85-99 Low Average ...      | 14                          | 24                     |
| 100-114 High Average ...   | 13                          | 9                      |
| 115-129 Superior ...       | 4                           | 1                      |
| 130+ Very Superior...      | 9                           | 0                      |

**TABLE VI (a). UNSELECTED CHILDREN (59 cases)**

|                          | Performance Test<br>% Found | Verbal Test<br>% Found |
|--------------------------|-----------------------------|------------------------|
| Below 70 Very Backward   | 27                          | 3                      |
| 70-84 Backward ...       | 17                          | 22                     |
| 85-99 Low Average ...    | 19                          | 36                     |
| 100-114 High Average ... | 12                          | 24                     |
| 115-129 Superior ...     | 19                          | 12                     |
| 130+ Very Superior ...   | 6                           | 3                      |

The difference between the two sets of scores can be more clearly seen from the simplified diagram (over) in which the results are shown in three grades only: —

- (a) Children showing more than 15 per cent retardation in relation to chronological age. (This group is misleadingly large for the Performance Test because Koh's Block Design, unlike the Verbal Test, cannot be scored at all under Mental Age 5.3, and it is not suitable for use with children under Mental Age, approximately 8 years (see below).
- (b) Average children.
- (c) Children with mental ages 15 per cent or more in advance of chronological age.

If we compare these results with those of the Verbal Scale we see that many physically handicapped children, especially



backward children, do better when measured on a Performance Test than on the Stanford Binet. Rather more backward children show retardation when measured on a Verbal than on a Performance Scale, whilst distinctly fewer show superior ability. On the other hand more of the unselected children not referred as backward show retardation on the Performance than on the Verbal Scale.

As already stated the Binet scale presupposes a roughly common background in children tested, of verbal and school knowledge, and of everyday experience. A child deprived in any or all of these directions, as is often the case with one physically handicapped, and with long periods of absence from school or home, is, therefore, at a disadvantage; whereas on a Performance Test these factors are largely eliminated. Most of the most striking discrepancies between scores on the two tests appeared amongst hospitalised children.

It clear, from many individual results, that no physically handicapped child ought ever to be assessed on the result of a verbal test alone, particularly if, as is often the case, the assessment is being made for the purpose of an ascertainment of educational sub-normality. At the same time it would not be wise to base an assessment purely on the results of a Performance Test.

The results of the Performance Test obtained in this enquiry show an abnormal distribution which needs to be further investigated. They may be partly due to one or more of the following facts:—

- (a) The composition of the two samples—neither of which represents a truly random selection of children.
- (b) The unsuitability for the younger age groups of the particular test employed.
- (c) Many children were handicapped in manual tasks by an obvious physical disability. There is also evidence suggesting that children with certain disabilities, though they appear able to use their hands normally, have difficulties typical of much younger children in interpreting what they see, and in linking up what is seen with the appropriate motor actions.
- (d) The inclusion of spastic children (see Note, page 15). 38 per cent of children showing very inferior ability on the Performance Test were spastic children.
- (e) Some types of emotional disturbance affect performance level much more markedly than verbal ability. More research is needed, however, into the whole problem of non-verbal tests for physically handicapped children.



On the whole it was felt that, when dealing with very severely handicapped children, the most satisfactory results were obtained from Raven's Progressive Matrices (1938) which is both non-verbal and non-manipulative. The recently issued (1947) form of this test may help to fill a long-standing need for tests of a similar type suitable for younger children.

In the meantime, since individual assessment of physically handicapped children is often by no means easy for a psychologist experienced in this type of work, it should never be attempted by anyone without special training.

Many examples of inadequate assessment by people without specialised experience in this field of work were met with during the course of the survey, some of which might have prejudiced the child's whole chances of education or later adjustment in society. The discrepancies were not only between results obtained in the Survey and in a previous test. There were also wide discrepancies between two or more previous tests. For example, one examiner would say that a child was educationally subnormal, whilst a subsequent report stated that he was of average intelligence.

The innate abilities of physically handicapped children were frequently underestimated. For example, it was said of Pamela C., aged 7 years, with poor speech and severe diplegia, that "she dribbles and seems defective." She had therefore been referred for statutory ascertainment as ineducable. She was, in fact, of average or above average intelligence and showed quite remarkable initiative in communicating with the psychologist by non-verbal means. Another girl had been refused special training on the grounds of her "mental deterioration." This deterioration was apparently inferred from the fact that she had previously been subject to epileptic fits. In fact when seen she was a competent child of high average intelligence.

Very rarely the mistake was in the opposite direction. Bobbie G., aged 13 years, was not referred as backward because it was stated that the "only reason why he sometimes failed to comprehend the lessons was that he was rather deaf." On careful examination, using non-verbal methods, he proved to have a Mental Age of less than 6 years and was a defective quite unable to profit from any formal education. Yet he had been in school for seven years.

The need for skilled assessment was not confined to the children who were backward.

Bert was in trouble for stealing and due to appear in Court—a bright looking very talkative boy. Constant punishment at school and home seemed not to curb his irrespressible high spirits and persistent misdoings. He proved on testing to be of an ascer-



tainable level of subnormality, a fact unsuspected by either school, parents or the Court, and which threw new light on his behaviour, particularly on the persistent cheating in lessons which had been one of his school delinquencies.

There seemed urgent need that every school should have access to skilled advice and assessment, not only in connection with cases of retardation or possible ineducability, but also for guidance and advice on such matters as behaviour problems, and specialised training for brighter children.

Incidentally the psychologists were in somewhat of a dilemma over the question of giving information and advice on the children referred during the course of the enquiry. It was constantly asked for and expected by the teachers; but it was not within the terms of reference for which permission had been granted to visit the schools. It was particularly difficult for the psychologists to steer a non-committal course when the welfare of an individual child appeared to be at stake.

It may be noted that at least three independent schools for children with specific physical handicaps employ a psychologist on a part-time basis, who can thus specialise to some extent in the problems of testing and of education associated with a particular disability. One or more psychologists are also employed by several large voluntary organisations responsible for groups of residential institutions (e.g., an organisation dealing with blind children). An extension of this practice to other voluntary organisations dealing with children with crippling defects might be of both immediate usefulness to the schools concerned, and of long-term value in increasing psychological knowledge of testing and teaching methods, and of means of compensating for particular types of disability.

## **D. THE PLACEMENT OF PHYSICALLY HANDICAPPED CHILDREN WHO ARE BACKWARD**

### **(i) General Considerations**

Sections IV A and B have dealt mainly with the incidence and kinds of retardation and maladjustment amongst children in P.H. schools and with some means of assessing the children concerned. They have shown that both retardation and emotional difficulty are very common, but that the number of children who are backward primarily because they are dull is relatively small. The following two sections will consider the question as to whether these very dull children are, in their own interests or that of other children, unsatisfactorily placed in their present schools, and what, if any, alternative provision is desirable.



It became increasingly clear as the Survey progressed that although Head Teachers were specifically asked to refer backward children, they were often anxious to put forward children showing other difficulties. Backwardness in itself did not usually constitute a major problem unless it was combined with unsatisfactory behaviour, including that of lack of normal response to teaching.

## **(ii) Children able to live at home**

Ten of the 13 Head Teachers of Day P.H. Schools who were consulted, said that they had no backward children in their schools whom they felt would be better placed in any alternative (e.g., residential) type of school, or whose presence in the school was prejudicial to other children, although three added that difficulty might arise in the case of a child who was markedly maladjusted. One teacher thought that a few children could be better dealt with elsewhere, and two teachers felt unable to express a definite opinion.

The general point of view expressed with regard to children who might need special treatment was that they could be best dealt with in a Special Class with specially trained Teachers. Only two teachers advocated placement in a Residential Special School.

These Head Teachers also gave information about the transfers arranged during the previous two years.

Actually, of a total Day School population of 917, 11 backward children, so far as enquiry showed, had been passed to Day Schools for educationally sub-normal children, and 1, for social reasons, to a Residential School for educationally sub-normal children. Seven of the 13 Day Schools visited had not wished to transfer any backward children during the years 1947-49.

It was clear that the small size of classes and more individual methods of the P.H. School enabled children of a far wider range of ability to learn satisfactorily together than would be possible in an ordinary school, although the success with which this was achieved varied, as it must do in all teaching, according to the competence of the teacher. One Head Teacher sadly observed that the main emphasis in the Training College is still on class methods, and that the teacher coming to a Hospital or P.H. School has to work out his own technique by what was sometimes a rather laborious process both for himself and for his class.

Is there any case, therefore, for separate provision for duller physically handicapped children?

To draw a line at say, I.Q. 70 or 75, and state that children below this level should be separately educated, is obviously to



make an arbitrary segregation. Several stable, conscientious children of I.Q. 60-70 were amongst the group of children not regarded by the school as particularly backward. One class seen in a Day School contained two children with I.Q.'s under 50, with whom the teacher felt he could cope, and was in this exceptional case, apparently dealing satisfactorily.

Moreover, not only was the average level of ability in a P.H. School rather lower than in an ordinary school, but such a large proportion of intelligent children were grossly retarded in school attainment (e.g., Paul S., I.Q. 143, learning to read at 9½) that it would be quite erroneous to imagine that once the very dull children had been eliminated the rest could be dealt with as a homogeneous group. Much of the work in a P.H. School is necessarily individual even with the most able children.

At the same time there were in most P.H. Schools a very small group of children who, for various reasons, required more than usually continuous individual help. Most often they were spastic children especially those with manual or speech disabilities, (see Graph 6) a few suffered from other severe physical handicaps, (e.g., muscular dystrophy,) a few, especially younger children, were unable to join in normal activities owing to psychological disturbance, and the smallest proportion of all were unable to co-operate purely on intellectual grounds. These children all required to work at a slower tempo than their fellow pupils. It seems clear that special provision is desirable for this whole heterogeneous group because of their greater demands upon the teacher. The claim for special provision on grounds of low intelligence alone is less definitely established.

Alternative forms of provision for these children would be:—

- (1) Special Day School for children both physically handicapped and below normal in intelligence.
- (2) Special Class within the ordinary (P.H.) School. This appears to be the most practical solution under most authorities.
- (3) Residential School accepting children who are both intellectually sub-normal and physically handicapped (of which only one appears in the Ministry's 1949 List).

For intellectually backward but physically normal children the benefits of a Special School lie particularly in (a) the smaller classes and (b) more concrete, and less verbal teaching methods. The smaller classes are, however, found in all schools for P.H. children, and the more concrete teaching also in the most successful of these schools. From the point of view, therefore, of the P.H. child, the main reasons which justify the segregation of the duller group of physically normal children do not apply,



and will do so less and less as the need for more concrete learning to replace their deprivation of everyday experience is realised in connection with almost all P.H. children.

In fact, the marked success which some P.H. Schools showed in dealing with these duller children appeared to depend, not on any particular variation in method, but on the presence of a teacher with an exceptional understanding and sympathy for the needs of this group, and an ability to appreciate intangible rather than spectacular results. While, therefore, the mass of dull P.H. children can be dealt with satisfactorily in ordinary classes of P.H. Schools, the investigation produced some evidence that a small proportion of children would profit from further specialised treatment. This group was determined rather by emotional and physical needs than by mere dullness. For such children special provision as indicated above is well worth considering. As indicated this special provision may be in: —

(a) **Day Special Schools** (for physically handicapped children who are very backward)

As already noted this type of school is likely to be impractical in most cases owing to the small number of children involved. An alternative might be the setting up of a small unit for dull P.H. children within an ordinary E.S.N. School. In one area visited the E.S.N. and P.H. departments were housed together in one school. Both departments were making as much use as possible of progressive individual methods, so that the case for transfer from one department to the other could be considered on its merits. There seemed little or no evidence that dull children with slight physical disabilities made better progress in an E.S.N. than a P.H. department, though they might sometimes gain a little in poise and confidence as a result of working with children of a lower intellectual level. It would seem unsatisfactory on the whole to form any kind of P.H. unit within an existing E.S.N. School. Apart from other possible objections, educationally sub-normal boys tend to be particularly "tough" in their play activities. The alternative is to provide an E.S.N. unit in a P.H. School and this is roughly what is done by the formation of a Special Class.

(b) **Special Classes** (within ordinary P.H. Schools)

The primary advantage of Special Classes over Special Schools for physically normal but dull pupils lies in the fact that in this way dull children are not deprived of contact with normal children in the playground and in social relationships, but at the same time are given activities and teaching suited to their abilities. This applies even more strongly to physically handicapped children who are already inevitably segregated to some



extent by their physical handicaps. Moreover, some of these dull children show relatively high practical ability (see Table VI), and organisation in a Special Class enables them to share in practical groups for art, craft, etc., with fellow pupils from other classes. Special Classes, therefore, show advantages over Special Schools, even more strongly in the case of physically handicapped, than of ordinary, dull children.

It may be fairly objected that the numbers of such children within any one school are insufficient to justify such provision, and this is probably true of the smaller areas. But Authorities with P.H. Schools of over 100 pupils and certainly all those with more than one P.H. School in their area, could well consider making some provision of this kind.

Several classes in schools and hospitals which were in effect "Special Classes" were visited (organised through the initiative of the Head Teacher or of a Class Teacher with special knowledge) but only one was officially recognised as such by the Authority. It seemed to be making a valuable contribution to the problem of backward physically handicapped children and some details about it are perhaps of interest: The class numbered 20 in an all-age mixed P.H. School of 130 pupils—the only Day P.H. School in the Authority's area. It was officially a Special Class for Spastics: in fact the brighter spastics were members of ordinary classes, and the class included other very dull or very severely handicapped children. The common elements were that all the children required a slow tempo, individual treatment, opportunities to compensate for exceptional limitations, and a teacher with special ability in this very exacting task. It was on the basis of these common needs that children were selected for membership of the Special Class, not because they fell below some fixed limit of intellectual capacity.

Two essentials for the success of Special Classes are specially qualified teachers and proper selection of children: (classes of the kind described are unsuitable for, and may be damaging to, some retarded but clever children). There are in the P.H. Schools a number of teachers already well qualified for such work, others temperamentally suitable could become so with special training.

A trained Psychologist, experienced in dealing with handicapped children, could give invaluable assistance to Head Teachers in the selection of suitable children to attend Special Classes.

### **(c) Residential Schools**

It would therefore seem that any educable child (however retarded intellectually) able to attend a Day P.H. School should only be transferred to a Residential School for reasons of medical treatment, or in the event of unsatisfactory home conditions.



This conclusion is in agreement with the Ministry's suggestion that, when Day Special Schools are available, "The decision to send children into residence (boarding Special Schools) will seldom, if ever, be reached purely on grounds of the degree of retardation."

Recent evidence of Social Workers and Psychologists, together with such official enquiries as that leading to the Curtis Report, all suggest that a child should only in exceptional circumstances be deprived of the benefits of an even moderately satisfactory home life in order to be sent to a Residential Institution. The main reason adduced for this view—the loss of continuous and stable parental relationships—applies even more strongly to physically handicapped than to normal children, as the former have so often already met with changes and experiences likely to undermine their feeling of security.

### **(iii) Children Requiring Residential Treatment**

The foregoing sections have dealt with the placement of dull and backward children who are now in Day Schools, and who are able to live in their own homes.

There are, however, a number of physically handicapped children unable to live at home with their parents owing to one of the following reasons:—

#### **(1) *Medical Reasons***

- (a) Children requiring specialised treatment, who are usually in hospital, but sometimes in Residential Schools. (The facilities for medical treatment in Day and Residential Schools varied very much under different Authorities).
- (b) Children not necessarily undergoing treatment, but whose physical disabilities are so severe as to require nursing and attention which could not be given in an ordinary household. These include severe cases of spastic paralysis, muscular dystrophy, and spina bifida.

#### **(2) *Social Factors***

Children with unsatisfactory or non-existent homes including those covered under Section V of the Children Act, 1948.

#### **(3) *Educational Factors***

Children (of all levels of ability) for whom there are no educational facilities within reach of their own homes. This applies particularly to children in some country areas.



In some Residential Schools most of the children appear to be selected on social, in others on medical, grounds. Often a combination of social and medical factors leads to the decision to place a child in residential care.

The question already considered, as to whether separate provision should be made for the dullest of the children arises in Residential as in Day Schools. The problem can only be touched on here, because the National Association for Mental Health was asked to exclude voluntary P.H. Institutions from this enquiry, and the study of residential work was therefore limited to three Hospitals and two Residential Schools under Local Authorities (of which there appear to be only about four accepting cripples in the whole country).

#### (a) Children in Hospitals

The following facts, however, bearing on the number of dull but educable children in three Hospitals may be noted:—

None of the backward children put forward by one Hospital were found to have I.Q.s below 70.

Of the children put forward by the second Hospital only one was dull enough to be classifiable in the E.S.N. Group. Retardation in learning rather than dullness, was clearly the problem with which teachers in these two Hospitals were faced.

In the third Hospital, four children were found amongst those examined, and one further case reported, who were dull enough to be ascertained as E.S.N., in addition to one whose capacity was so reduced as to render her ineducable. Owing to the size of this Hospital there may, however, have been other E.S.N. children here who had not been noted.

Children were placed in this Hospital for medical reasons: the question of suitable placement on educational grounds arose only when they were discharged. Of 218 new cases attending the Orthopædic Out-Patient Department at this Hospital in 1948 only two were noted as unable to obtain suitable schooling because they were reported to be educationally sub-normal. (This Department does not, however, deal with cases of cerebral palsy under treatment). Only one case was reported in which there had been difficulty, on grounds of educational sub-normality, in finding educational provision for an in-patient on discharge from hospital. Of these three children two were seen: one was a spastic of average intelligence but severely physically handicapped, and one was of a level of intelligence which would render him ineducable. (The third, who was not seen, was another spastic child.)

These facts suggested that intellectual sub-normality did



not form a substantial problem in the school placement of P.H. children on discharge from Hospital.

#### (b) Gravely Disabled Children

There were, however, in this Hospital, a number of duller children amongst those whose disposal presented problems primarily on medical grounds. This question lies outside the terms of reference, but is alluded to here because there seems to have been some confusion in the past between the medical and educational aspects of the problem of residential placement for physically handicapped children, i.e., in some cases where children are said to be difficult to place because they are dull, the difficulty is really due rather to the severity of their physical handicap.

Children with severe permanent, and in some cases progressive, physical disabilities, e.g., spina bifida and muscular dystrophy, are difficult to place. (Few Voluntary Homes, for example, will accept disabilities resulting in double incontinence). A number of these children are also dull, some through innate limitations, others, so it appeared, owing to some degree of deterioration due to organic causes, but much of the apparent dullness amongst this group seemed attributable to their extreme deprivation and disability.

The primary problem in placing these children was a physical problem: they were in need of very specialised medical care. At the same time they all, of whatever intellectual level, required every possible scope for their limited powers of self expression, and constant understanding of their personal problems. These needs were fully appreciated in the two Hospital Wards where a number of them were examined. But because all these children required such entirely specialised and individual treatment, it seemed that any segregation or distinction into intellectual grades (except in the case of ineducable defectives) would be entirely artificial, and serve no useful purpose.

A few children of this type were also seen amongst the most severely handicapped in Residential Schools. Here again it appeared that, regardless of their intellectual level, the primary need of the children (apart from constant physical care) was for understanding individual treatment, providing such scope as was possible for normal experience, and hence that none of them, not excluding the most intelligent, should be restricted educationally to any formal curriculum, such as was appropriate to the fitter children with whom they were often mixed.\*

In this respect they formed a more homogeneous group for

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\* See under Section "School and After."



teaching purposes than was the case when an attempt was made to classify them on intellectual grounds with less handicapped children of their own level.

The needs of all were so limited and specialised by reason of their disability, that they had more in common with one another as a class unit than with brighter or duller—but more physically normal—children.

### **(c) Children rejected for admission to Voluntary Schools**

Another problem, which only came to notice during the course of the Survey (and was not included in the terms of reference) was that of certain physically handicapped children in their own homes whom it was suggested were not in receipt of suitable education because no P.H. School would accept them owing to their low intellectual level.

On the whole, the evidence suggested that few, if any, educable children were excluded from Local Education Authority P.H. Schools (either Day or Residential) on purely intellectual grounds. One of the large voluntary organisations, however, responsible for running Residential P.H. Schools and which makes a preliminary selection, excludes, as a rule, applicants with a reported Intelligence Quotient of under 70. This Society does not employ its own psychologist for the purpose of screening applicants, as is done by a number of other voluntary bodies running schools for handicapped children. The test results on which the decision is taken are therefore usually those obtained by an examiner on a test given in the child's home area. There are certain difficulties inherent in this practice which will be readily appreciated by anyone experienced in dealing with children suffering from any handicap.

The organisation has rejected at least 94 children (mainly put forward by Local Authorities) since 1940 on grounds of reported educational sub-normality or maladjustment. They form more than one-fifth of all the children rejected for any reason by the Society. 53 of them (70 per cent) were spastic children.

Would it be right to infer from this fact, as some people appear to have done, that there are a large number of children now in their own homes and unable to obtain the education they need, because of their combination of educational sub-normality with a physical handicap?

To answer this question it is necessary to know:

- (i) How many children, though rejected by this Organisation, were accepted by some other with more elastic selection methods.
- (ii) Of those not obtaining alternative residential placement, how many were instead given satisfactory educational provision whilst remaining in their own homes.



- (iii) How many were in fact not capable of profiting from education of any kind had it been available.

It was impossible to follow up all the 94 cases in the limited time available during the Survey. As a "pilot" for any further enquiry which may be thought necessary, however, a follow-up was made of 28 of these rejected applicants, comprising all those coming from eight different Local Authorities.

The results showed that:—

9 had been placed in other Residential Institutions, viz., Voluntary P.H. Schools (5); P.H. Schools under Local Authorities (3); Hospital School (1).

9 had remained at home where alternative educational facilities had been provided, viz., Ordinary Day Schools (4); E.S.N. Day Schools (2); Home Teaching (3).

2 were not traced and 1 had died.

7 children remained who were still at home and with no education provided for them; but of these, 5 appeared from Test records likely to be ineducable, so that they would not in any case have profited from attendance at a Residential Special School. One was awaiting admission to an E.S.N. School, so that only one of the 28 "rejected" children who were followed up, appeared to be in need of education and to have failed to obtain provision of some kind.

In addition to these 28 children, two other "rejects" of the same organisation now in P.H. Schools under Local Authorities were actually seen in the course of the Survey, so that it was possible in these two cases to see how far the alternative had proved satisfactory. One child had been rejected as intellectually sub-normal, the other as maladjusted. When visited, one was considered backward, though by no means one of the dumbest children in the school and was otherwise satisfactory. The other was reported to be making good progress and was not regarded as backward or particularly difficult.

It is not denied that Local Authorities experience real difficulty in placing dull and handicapped children, and that sometimes they make application to half a dozen or more schools before securing a vacancy, showing that there is a general shortage of accommodation for physically handicapped children.

But the details of the 30 cases studied, seem to suggest, pending further enquiry, that:

(i) Some of the children rejected as intellectually sub-normal by one organisation could, and in fact do, fit happily into other P.H. or ordinary Schools.

(For example, when an enquiry was made about the subsequent welfare of one of the children listed above, who after



rejection by the residential school, had stayed at home and attended an ordinary school, an Officer of the Local Authority wrote "Pat is very backward . . . but no trouble in school . . . she is an extremely nice little girl and very happy and extremely well-cared for in her home.").

(ii) Some of the remaining children are in fact ineducable (i.e., Local Authorities not infrequently apply for school vacancies on behalf of children who, were they not physically handicapped, would certainly have been dealt with under Section 57).

(iii) The difficulty in placing is closely tied up with the shortage of provision for spastic children of all intellectual levels.

In other words it is by no means proved that there are an appreciable number of intellectually sub-normal, but educable children, in their own homes (and not in receipt of any educational provision) who could not fit quite satisfactorily into the existing schools. The problem is the general shortage of accommodation for P.H. children, in particular for spastic children.

This general shortage of vacancies for all types of P.H. children seems the most valid reason for Voluntary Organisations to refuse admission to children of lower intellectual level: the educational grounds for doing so appear inadequate, provided that the child is educable.

#### **(d) Special Needs**

From what was said elsewhere, however, it might seem that there are stronger grounds for setting apart one or two schools for the minority of children with superior intelligence and milder physical disabilities.

The other need in the field of residential provision seems to be for suitable small homes providing both appropriate medical care and social and recreative training under skilled staff for ineducable children who have physical handicaps. To ascertain the number of such children requires a separate investigation as they are not, as has been shown by the results of this investigation, found in any number in existing P.H. Schools.

### **E. SCHOOL AND AFTER**

It seemed that the whole question of suitable educational provision both for the intellectually inferior and more able physically handicapped child should be considered in relation to his future as well as to the present classroom situation. Was the present system of educating physically handicapped children of all intellectual levels in the same school prejudicial to their future careers?



There is need to remember here that there are two quite separate groups of children: a natural reluctance to recognise this fact has possibly lead to a certain lack of realism in the planning of P.H. School curricula, especially of residential schools, in the past.

Firstly, there are children who are so seriously or progressively disabled that they will probably remain permanently in institutional care, and in some cases have little expectation of life beyond adolescence (these children were mainly but not exclusively found in Residential Schools and were considered particularly under (b) in the previous section).

There are, secondly, children for whom there is a reasonable prospect that they can ultimately be fitted to live more or less independent lives as ordinary members of a wider community, and whose training must be directed therefore towards this end. Only these children are considered in the present section.

For this second group, the attitude with regard to vocational training varied very much in different areas from those schools which have quite specific trade teaching to others which ignored the subsequent careers of their pupils, and could not name the jobs in which school leavers of the previous year had been placed.

Trade training, when offered, usually included commercial subjects for both girls and boys, tailoring and carpentry for boys, and needle trades for girls. Part of the value of the training, in addition to any technical skill acquired, lay in the feeling that it gave to the children that neither they nor their schooling were divorced from normal life. This was especially helpful to 15 and 16 year-olds, an age when some physically handicapped children felt an understandable grudge because their more fortunate friends and perhaps even a younger brother or sister, were already emancipated and earning a living whilst they themselves were still kept as "kids" at school.

As few schools were large enough to run more than three streams of vocational training, there was sometimes a danger of rigidity in the placing of the children. For example, intellectually bright children might go rather automatically into the commercial stream and the rest into tailoring or boot repairing, when in fact some were better fitted for other careers (see below). There were also cases of retarded children who probably needed general education more urgently than vocational training, e.g., a boy who said he "wanted to learn to read but hadn't time because of tailoring." There did not appear, in the after-care records, to be any higher proportion of successful placements (i.e., children who kept their jobs) from schools with, than from those without, specific vocational training. The curriculum of schools



which did not give vocational training usually included opportunities for interest groups of some kind, e.g., art, woodwork and dressmaking, which might contribute indirectly to trade skills, but there was a primarily educational rather than vocational approach.

The main factors making for successful placement in employment seemed to be personal interest and trouble taken by the school staff, together with early consultation (in one school, 6 months before leaving) with the Youth Employment Officer, so that all final work in school was orientated towards the child's future needs.

In one school where this was the practice, but which had no specific vocational training as such, children had been placed in the following types of employment at the end of the previous school year:—

|                                       |   |                                                                                             |
|---------------------------------------|---|---------------------------------------------------------------------------------------------|
| Tailor's apprentice                   | } | Boys                                                                                        |
| Textile designer                      |   |                                                                                             |
| Type setter                           |   |                                                                                             |
| Surgical instrument packer            |   |                                                                                             |
| Commercial                            | } | Girls                                                                                       |
| Confectionery making                  |   |                                                                                             |
| Receptionist to optician              |   |                                                                                             |
| Millinery maker                       |   |                                                                                             |
| Warehouse worker                      | } | These last were stated to be<br>the most educationally back-<br>ward children of the group. |
| Warehouse cleaner<br>(sweeping, etc.) |   |                                                                                             |
| Electrician's mate                    |   |                                                                                             |
| Dairy farm hand                       |   |                                                                                             |
| Hedge cutter                          |   |                                                                                             |

None of the children had proved impossible to place (and this was confirmed by most other schools). The fact that even the most dull and backward children could be placed in employment on leaving school, suggested that from this point of view the existing educational provision was catering reasonably satisfactorily for both dull and bright children.

Those who presented most difficulty were the spastics—regardless of their intellectual level—and it was clear that more provision is needed, both for the school education and later vocational training of spastic children.

There was sometimes another group which seemed inadequately served. The Group Test results called attention to a number of children of apparently very superior intelligence, and a few of these cases, especially those about to leave Junior Departments, were followed up with an individual examination. This, on the whole, confirmed the results of the Group Test, and indicated that there is a small, but important minority of children in P.H. Schools who are wasting valuable assets because sufficiently advanced education is not available. Usually,



although they may be considered "bright" children by the school, their degree of superiority is not fully realised because so often they are nevertheless retarded in school attainment owing to earlier absence. There was no reason for thinking that the education of these children was prejudiced by the presence of very dull children. The position was rather that there are a few children whose intellectual level is such that it falls right outside the normal range of a P.H. School. For example, in a Secondary Modern P.H. School the top five boys of the bottom Class were tested, and the Intelligence Quotients of four of them found to be below 85, whilst one was 90, so that the general level of the class as a whole could probably be described as dull and backward. Into that class next year will come the leavers from the appropriate Primary School. The leaving class of this particular Primary School included, when visited, two boys of superior and three of very superior intelligence indeed. One (I.Q. 145) has now been considered medically fit to go to a Grammar School, but all of them are intellectually fitted for this type of education.

It would be valuable if such children should be "screened" by a competent Psychologist in the Primary School, and when discovered, their cases discussed with the School Medical Officer. A School Medical Officer in recommending a physically handicapped child for attendance at a P.H. Day School, is normally inclined to think of the rough-and-tumble of a large Secondary Modern School as the only, and undesirable, alternative. Sometimes a lightly handicapped child might, with the School Medical Officer's permission, be placed in an understanding Day Grammar or Technical School, provided that a few obvious allowances can be made for his physical handicap and that he is given help with transport.

The provision for bright children is a small problem numerically compared with that for dull children, but it deserves serious consideration. Boys suited to a scientific curriculum in a Grammar School, or a highly skilled technical training, may be both unsatisfied and unsuccessful in the "Commercial" Class of the ordinary P.H. School, in which they are usually placed simply because they are considered too intelligent for manual trades.

In some ways there is a stronger argument for a small boarding school for such children than for the dull and backward. A child of outstanding ability with a rheumatic heart, for example, who was one of a family of nine children living in a rough, overcrowded home, might with advantage have been given the opportunity of specialised education in a Boarding School.

Several adolescents were seen, the cause of whose backwardness appeared to lie partly in their boredom and hostility to repeated years of work with classmates mentally many years



younger than themselves. For example, Tim, aged 15, of superior intelligence, was reported to be backward, and to have made "no effort" since he was 12. No questions were asked him about this, but he volunteered the information to the Psychologist that "When I was 12 the Teacher made me go back to the beginning of the book and start again." He was very hostile to the Teacher concerned. This boy was in a Two-class school so that the range of mental age in each class was very great indeed.

## SECTION V

### SUMMARY OF FINDINGS

#### A. GENERAL

1. The children in P.H. Schools who are regarded by Teachers as very backward, form about 11 per cent of the total P.H. School population.

2. Of this 11 per cent, only 3 per cent are backward primarily as a result of intellectual subnormality; in a further 4 per cent inferior ability is a contributory factor; whilst the remainder are of average or above average intelligence.

3. Most children in P.H. Schools are rather retarded in school subjects (e.g., Reading and Number) in relation to their Mental Age, but this retardation is much more marked in the case of the children referred as backward, of whom 89 (62 per cent) were more than 20 per cent retarded in attainment below their Mental Age, and 46 were non-readers.

4. Apart from inferior ability, and changes and absence from school, the most common causes of backwardness in physically handicapped children appear to be emotional difficulties, and deprivation of normal experience. Specific visual and auditory disabilities, not necessarily associated with any physical defect, were also found in a number of cases and these disabilities were usually unrecognised by the school.

5. Maladjustment and emotional difficulty appeared to arise from a sense of insecurity usually associated in the first place with unsatisfactory or inadequate parent-child relationships, but often aggravated by hospitalisation, and sometimes by constant changes, or unsympathetic handling in later school life.

6. Most schools appeared to lack, and endeavoured to make use of the Enquiry to obtain, the services of a qualified Psychologist to assess the ability of individual children, and to give advice on special educational treatment and allied problems.



7. Infants' schools appeared particularly anxious, and to have a special need, for advice of this kind in that

- (a) they are constantly asked by parents for quite general advice upon the handling of backward and maladjusted young children and
- (b) they deal with children at a time when the factors making for later backwardness can often be clearly diagnosed and sometimes remedied.

8. The individual assessment of ability in physically handicapped children is often a difficult task even for someone qualified and experienced in this field of work. Many physically handicapped children obtain much higher scores when measured on a non-verbal than on a verbal scale of intelligence. Reliance cannot therefore be placed on the result of any single test.

Factors particularly liable to distort test findings with physically handicapped children include:—

- (a) the physical limitations of the handicap, (b) lack of school knowledge, (c) poor verbal ability, (d) emotional difficulties, and (e) deprivation of normal everyday experience often over a period of many years.

## B. PLACEMENT

1. Dullness, unless combined with marked behaviour difficulties, is not regarded as a major problem in most P.H. Schools. The majority of Teachers think that dull children should remain in their present schools rather than that they should be transferred to other Special Schools.

2. Owing to the special conditions in P.H. Schools, it is possible for children of a wide range of ability to be educated together without apparent prejudice to either bright or dull pupils.

3. Both bright and dull pupils usually obtain employment, if physically capable, on leaving school; difficulty in placement is seldom encountered except in the case of spastic children.

4. There are, however, a very few (between .3 and .7 per cent) defective children in P.H. Schools who are probably ineducable and should therefore be excluded from school.

5. There are also a very few children of outstanding ability who require special provision after the age of 11+.

6. Amongst the remainder there are in most schools a few dull children who require very specialised help. These are mainly spastic children.



7. Unless residential treatment is advised for these children on medical or social grounds, the disadvantages of removal from their own homes would in most cases outweigh any possible advantages of attendance at a Residential Special School for Educationally Sub-normal and Physically Handicapped children.

8. Such children would, however, benefit from education in Special Classes, under specially trained Teachers, whenever the number of children involved would warrant this provision.

9. Children who for medical or social reasons are unable to live at home, or for whom there is no available provision in Day Schools, form another category and need separate consideration. On the whole, the reasons which enable P.H. children of differing levels of ability to be educated satisfactorily together in Day Schools apply equally to these children in boarding schools. However, if a child has to be removed from his home in any case, one of the main objections to Residential Schools for duller children (separation from his parents) is no longer applicable.

10. There are extremely few educationally sub-normal children amongst the hospital population and little difficulty has been encountered on purely intellectual grounds, in placing children in schools after discharge from hospital.

11. A number of children from hospitals are, however, difficult to place for physical reasons, because they are gravely ill or very severely handicapped.

12. These children are unsuitably placed in schools where they are expected to work to a formal curriculum. They need special provision both during their school years and at school leaving age.

13. There is no conclusive evidence as to the number of children in their own homes who are unable to obtain the education they need because they are both educationally sub-normal and physically handicapped:—

(a) Educationally sub-normal children were accepted by both the residential schools under Local Authorities which were visited, but they are excluded by the largest voluntary Organisation responsible for P.H. (residential) Schools. Rejection for this reason has involved at least 94 children since 1940.

(b) The number of children still at home and in need of education is, however, not as large as might at first sight appear because:—



- (i) Many of these children obtain residential vacancies elsewhere or alternative educational provision whilst living at home.
- (ii) A number are ineducable and could not profit from any formal education even were it available.

14. There appears to be a need for more Homes under specially trained staff which will provide for defective and ineducable children with physical handicaps who need residential provision on social or medical grounds.

15. There appears to be no case at present for the establishment of separate schools for children with physical handicaps who are also maladjusted. Emotional difficulties are so widespread that teachers in all P.H. Schools require training in the psychological needs of handicapped children. In some P.H. Schools, however, there are staff who, owing to temperamental qualities and special knowledge, seem particularly well-fitted to deal with maladjusted children, and children showing special difficulties benefit from placement in these schools.

## SECTION VI

### RECOMMENDATIONS

On the basis of these findings, the following recommendations are made with regard to the treatment of, and provision of educational facilities for, physically handicapped children who are educationally sub-normal or maladjusted.

#### A. CHILDREN ABLE TO LIVE AT HOME

- (i) No educable child otherwise able to live at home should be transferred to a Residential School purely for reasons of intellectual sub-normality.
- (ii) Children of average or rather inferior ability should remain in ordinary classes of Day P.H. Schools, but receive as much individual help as possible in overcoming particular difficulties. Especially in Hospital Schools, "Class" periods should if necessary be sacrificed to increase the time given to individual teaching.

Some of the children, especially those under 12, would benefit from greater use of modern "activity methods" and less abstract and verbal teaching.
- (iii) Children who are seriously sub-normal in intelligence but nevertheless educable should also remain in ordinary



Day P.H. Schools unless there are other reasons for their transfer, but they should be placed in Special Classes wherever the number warrants separate provision of this kind.

- (iv) Special Classes should be in the hands of specially qualified teachers, and a fully trained psychologist should be available to co-operate with others responsible for the selection of children to attend.

The classes should not be used for clever, retarded children, but only for those whose physical disability or intellectual limitation is such as to prevent them from working at a tempo suitable to the majority of physically handicapped children in the school.

It is anticipated that most, though not all, of the children requiring such provision would be those suffering from cerebral palsy.

Large Authorities controlling several P.H. Schools could arrange that at least one school includes a class of this kind: smaller Authorities in neighbouring areas might arrange to share one such class between them: but it is realised that many provincial Authorities have too small a number of sub-normal physically handicapped children to warrant the formation of a Special Class.

- (v) Children who are defective and ineducable should be excluded from school, but enabled to attend Day Occupation Centres where practicable, and to benefit from any other facilities provided by the Authority for physically normal defectives.

## **B. CHILDREN WHO NEED RESIDENTIAL CARE**

Further enquiry is needed into the adequacy of existing provision for physically handicapped children who are unable to live at home owing to medical or social reasons or to the absence of educational facilities as, by the exclusion of voluntary residential schools, this important subject was placed largely outside the scope of the present survey. Pending such enquiry, the present findings suggest the conclusions which follow.

- (i) Children, if educable, and in the absence of alternative specialised provision, should not in general be excluded from ordinary P.H. Schools purely on grounds of educational sub-normality, but a school might well be set apart experimentally for physically handicapped children of high average or superior intelligence.



- (ii) Children put forward for entry to a Residential P.H. School should be examined by a qualified psychologist experienced in dealing with handicapped children as well as by the School Medical Officer (as provided for in Form 2.H.P. amended). Very careful consideration should be given to the initial assessment and placing of the child, especially where there is a choice of several alternatives (as in the case of an organisation controlling several schools) in order to avoid any subsequent necessity for transfer.

Children assessed as defective and ineducable should not be admitted to any school but dealt with under Section 57 of the Education Act, 1944, either by the adaptation and addition to staffing of certain existing homes to enable them to receive physically handicapped children, or by the provision of new small homes for this purpose.

These homes should have, in addition to nursing staff, personnel who have taken the training course for Supervisors of Occupation Centres.

- (iii) Schools of a very informal kind should be experimentally established (or set apart) by voluntary societies or Local Authorities to cater for the children, whether of average or sub-normal ability, who are so gravely physically disabled that they are unsuitable for admission to ordinary P.H. Schools, and likely to require lifelong institutional care, including those suffering from progressive diseases such as muscular dystrophy. The primary emphasis of these schools will be on discovering and providing compensatory outlets for such children rather than on formal educational training. These schools should be in the hands of teachers who do not look for results in terms of academic achievement, but have outstanding ability and personal concern for dealing with the wider problems of severely handicapped children.

[NOTE: There are, of course, existing schools for this severely handicapped group of children, although (owing to the exclusion of Voluntary Schools from the Survey) there was no opportunity to visit them during this enquiry. It is understood, however, that these schools work to an academic curriculum which in some cases includes such subjects as algebra, trigonometry, and geometry, and have a definite minimum intellectual standard for admission. It was felt that the most severely and chronically handicapped children seen in the course of the survey, and to whom this section refers, were not of a type likely to derive either future benefit or immediate satisfaction from formal education of this kind. New experiments are therefore needed



in provision for such children, including those whose expectation of life is short, and whose needs must therefore be considered in terms of present compensation rather than of future requirements.]

- (iv) Homes should be established to receive such children at school-leaving age so that the present practice of transferring them to chronic wards in hospitals and institutions may cease. Until such time as there are compulsory rather than permissive statutory powers to cover these adolescents, it seems unlikely that many Local Authorities will make special provision for their needs. It is hoped, therefore, that in the meantime one or more voluntary organisations may be prepared to take the initiative in establishing suitable homes, and that Local Authorities may then largely maintain them on a per capita basis.
- (v) Further Residential Schools and Day Units should be provided for educable spastic children. (See Note, page 15).
- (vi) Children who are severely maladjusted should whenever possible be placed in those of the existing P.H. Schools which have staff particularly interested in, and with special knowledge of, psychologically disturbed children, but no separate school should be at present established for maladjusted P.H. children.

### **C. OTHER RECOMMENDATIONS**

#### **(i) Continuity**

Children should be given as much continuity and stability as possible during their school life, especially children in residential schools. Teachers in hospitals should only be transferred from ward to ward in exceptional circumstances, and children should have as few changes of ward as are compatible with the requirements of hospital treatment.

#### **(ii) Transfer**

Both day and residential schools should, if possible, avoid a break before the age of 11+. If a transfer from an Infants Department to a separate Junior School is unavoidable due to limits of accommodation or other accidental reasons, it should never normally take place before the age of eight.

#### **(iii) Secondary Education**

There should be special provision for children of superior intelligence after they reach the age of 11, preferably if they are



medically suited by facilitating their attendance at existing Day Technical or Grammar Schools, but where this is impracticable by attendance at a Residential School designed for the purpose.

#### **(iv) Vocational Preparation**

Schools giving specific vocational training should guard against the danger of too narrow a restriction of the child's education, especially in the case of the children who may not be really suited for any of the trades which can be taught in school. All schools, however, should keep constantly in mind the probable future of the child and the degree to which he can be prepared to take a normal place in the community. The adolescent, especially, should be helped to feel that there is a closer link between school and life. Education in formal subjects should as far as possible be confined to skills of which he is likely to make effectual use after he has left school, and more of his school time should be devoted to activities designed to help him in his general self-development and adjustment to normal life.

All schools attended by children of 11+, except those for permanently institutionalised children, should maintain close contact with the Youth Employment Officer, and the parents, with all of whom the child's future should be discussed some months before he is due to leave the school. Contact should also be maintained if possible, after he has left school.

#### **(v) Hospitals**

Every opportunity should be taken of enlisting the interest and co-operation of medical staffs in hospitals in understanding and preventing the psychological as well as physical problems of the handicapped child. Particular emphasis should be laid on the importance of providing occupation and concrete play material for all young children who are deprived of so much normal experience.

#### **(vi) Child Guidance Clinics**

There should be at least equal facilities for skilled examination, and if necessary treatment, of physically handicapped children showing behaviour difficulties or abnormal response to school, as are laid down as necessary for physically normal children in the same circumstances.

This means in effect that every P.H. School should have access to a Child Guidance Clinic to which behaviour problems can, if necessary be referred.



There should be direct contact between Clinic and School (e.g., between the Head Teacher and the Educational Psychologist) in addition to any indirect referring of cases through a School Welfare Officer. Clinic staffs and Local Authorities should, if necessary, make special arrangements (as regards transport, time of clinic sessions, etc.) to facilitate the examination and treatment of physically handicapped children. In large areas this might best be arranged by enabling one or two Clinics to specialise in work for handicapped children and to employ staff with special experience of their problems.

#### **(vii) Other Advisory Services**

In the meantime, in view of the shortage of clinic vacancies and the need for preventive rather than remedial measures, some arrangement should be made experimentally (e.g., through a peripathetic staff holding weekly sessions in selected Infants Schools) whereby parents of young children may obtain advice and help, combined in some cases with an observation period of remedial play for the child, before a selection is made of the more serious cases requiring clinical examination. It is hoped that in view of the pioneer nature and research value of an experiment of this kind, some help might be obtained from voluntary funds if such a Centre could not be entirely maintained by the Local Authority.

#### **(viii) Assessment of P.H. Children**

The individual assessment of physically handicapped children should only be undertaken by people both qualified and experienced in this difficult field of work.

Reliance should not be placed on the result of a single test, whether verbal or non-verbal, especially when a decision has to be made affecting the future educational provision for the child.

#### **(ix) Educational Psychologists**

Local Authorities should arrange that the services of a qualified educational psychologist are available to P.H. Schools. The psychologist should, in co-operation with the School Medical Officer, be responsible for making individual assessments of ability in connection with such matters as remedial teaching, school transfer, entry to special classes and suitability for specialised training. Special arrangements should be made by voluntary or other residential schools which cannot practicably obtain such services from a Local Authority and do not already employ their own psychologist on a part-time basis.



For example, the larger voluntary societies responsible for P.H. Schools might arrange to share the part-time services of a psychologist, who would both act as a consultant on selection, placing, and education of the children in the Societies' care, and at the same time gain rather more specialised knowledge and opportunities for research into the problems of assessment and education of physically handicapped children, than is possible for most busy psychologists covering the whole school population under a large Local Authority.

#### **(x) Training of Staff**

Further specialised training should be provided for teachers in both voluntary schools and those under Local Authorities. All teachers should be thoroughly familiar with modern teaching methods for ordinary children, and should, in addition, have special knowledge of individual as opposed to class techniques, of remedial teaching methods, and of the causes and prevention of emotional difficulties in physically handicapped children. Such knowledge would be of value to teachers in the day-to-day handling of problems of retardation and maladjustment, although there would, of course, remain some children for whom specialised psychological advice or treatment would still be necessary.

Existing training courses, such as those organised by the Ministry of Education, could perhaps devote more time to the psychological aspects of backwardness, somewhat on the lines already adopted in the Ministry's courses for teachers in school for educationally sub-normal pupils.

Non-teaching staff, especially in residential schools and homes, should also be provided with special training in the needs of physically handicapped children.



## SECTION VII

### SUMMARY OF RECOMMENDATIONS

#### A. CHILDREN ABLE TO LIVE AT HOME

- (i) Physically handicapped children otherwise able to live at home should not be transferred to residential schools for reasons of educational sub-normality, but retained in the P.H. Day Schools or, in the case of defectives, in Day Occupation Centres, unless more specialised non-residential provision is available.
- (ii) Special classes should be provided in Day P.H. Schools in areas where there are a number of educationally sub-normal children with physical disabilities.
- (iii) Defective and ineducable physically handicapped children should be excluded from school, but as far as practicable, share all facilities provided for physically normal defectives.
- (iv) Children who are retarded in specific subjects should be provided with adequate individual teaching.

#### B. CHILDREN WHO NEED RESIDENTIAL CARE

- (i) Further research should be carried out both into the adequacy of existing residential provision for physically handicapped children unable to live at home, and the type of residential education which will best meet their needs.
- (ii) "Schools" of an experimental type should be established for children, including backward children, suffering from very severe physical disabilities which make them unsuitable for admission to ordinary P.H. Schools, and which in most cases require lifelong institutional care.
- (iii) Homes should be established which will receive such children at school-leaving age.
- (iv) Further residential schools and day units should be provided for educable spastic children, especially those of primary school age.
- (v) Further homes are required which will receive defective and physically handicapped children who are ineducable.



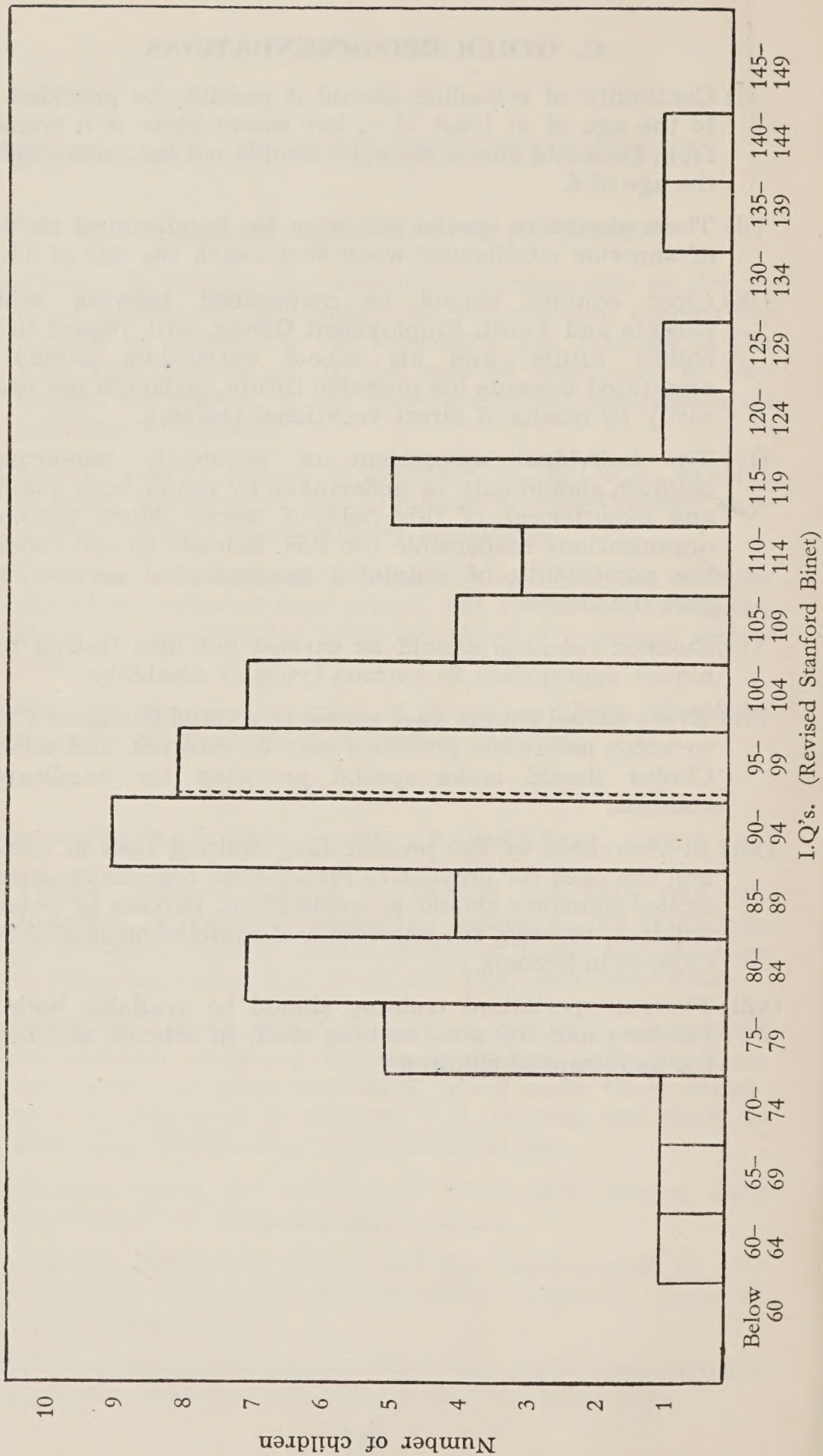
### C. OTHER RECOMMENDATIONS

- (i) Continuity of schooling should if possible be provided, up to the age of at least 11+, but where there is a transfer from Infant to Junior School it should not take place before the age of 8.
- (ii) There should be special provision for handicapped children of superior intelligence when they reach the age of 11.
- (iii) Close contact should be maintained between school, parents and Youth Employment Officer, with regard to the child's future, and his school curriculum should be orientated towards his probable future, although not necessarily by means of direct vocational training.
- (iv) The individual assessment of physically handicapped children should only be undertaken by people both qualified and experienced in this field of work. More voluntary organisations responsible for P.H. Schools should consider the advisability of obtaining psychological service on a part-time basis.
- (v) Further research should be carried out into testing techniques appropriate to various types of disability.
- (vi) Every school should have access to a Child Guidance Clinic, to which behaviour problems may be referred, and selected Clinics should make special provision for handicapped children.
- (vii) In view both of the present long waiting lists at Clinics, and the need for preventive rather than remedial measures, skilled guidance should be available to parents of younger children, through the experimental establishment of Advice Centres in Schools.
- (viii) Further specialised training should be available both for teachers and for non-teaching staff, in schools and homes for handicapped children.



GRAPH 2 (a)

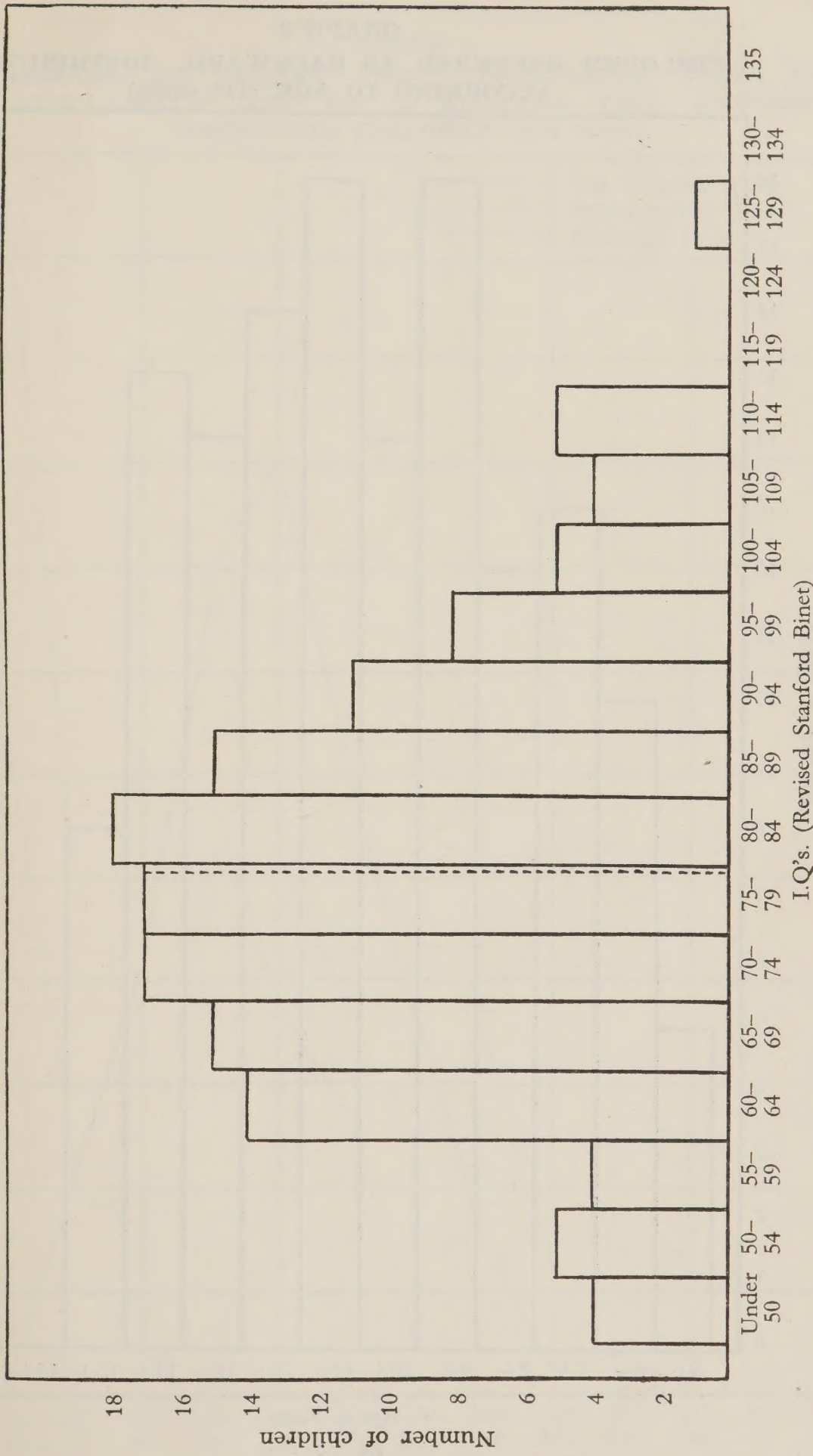
CHILDREN NOT SELECTED AS BACKWARD. DISTRIBUTION OF INTELLIGENCE. (59 cases)





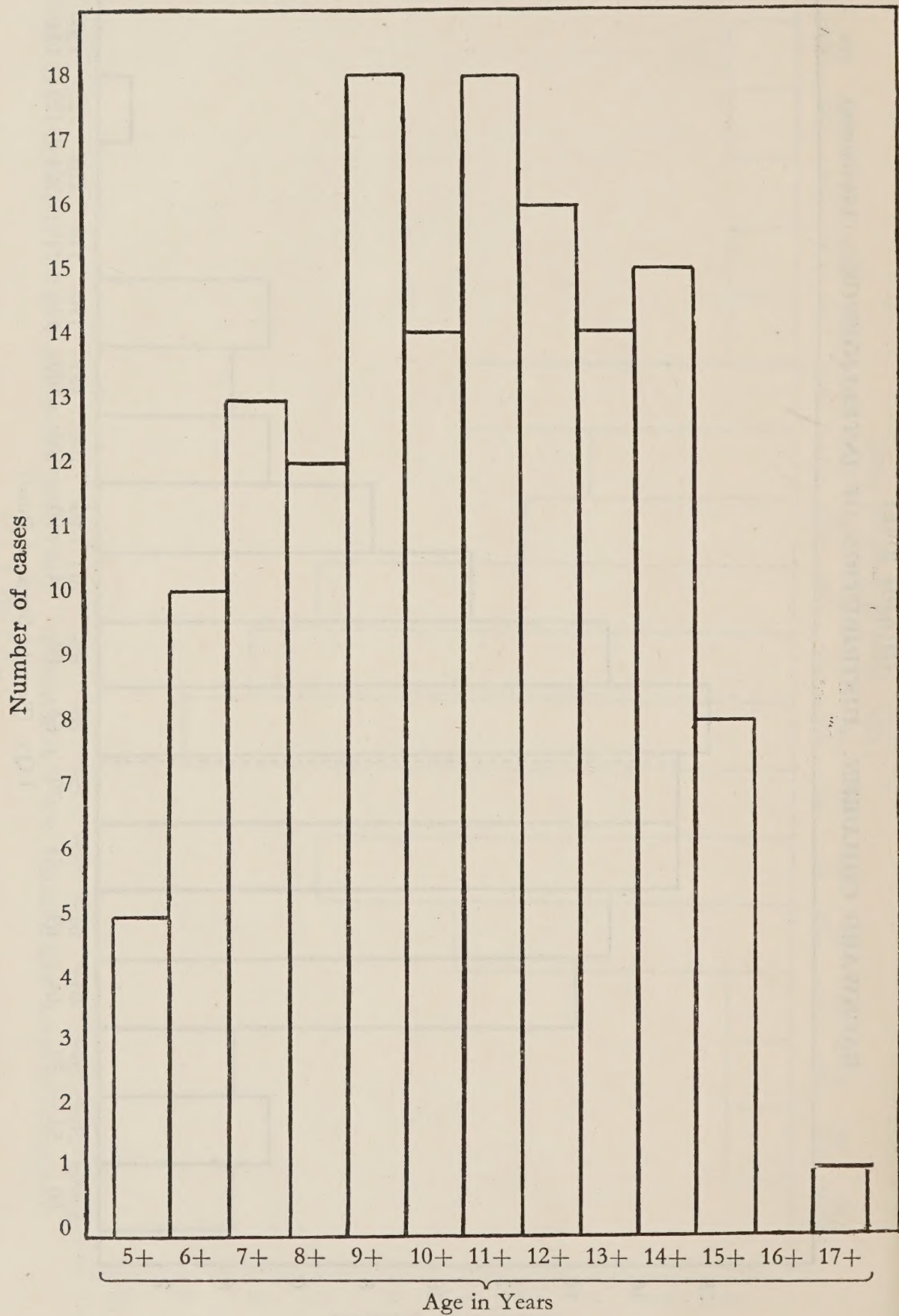
GRAPH 2 (b)

BACKWARD CHILDREN. DISTRIBUTION OF INTELLIGENCE. (144 cases)



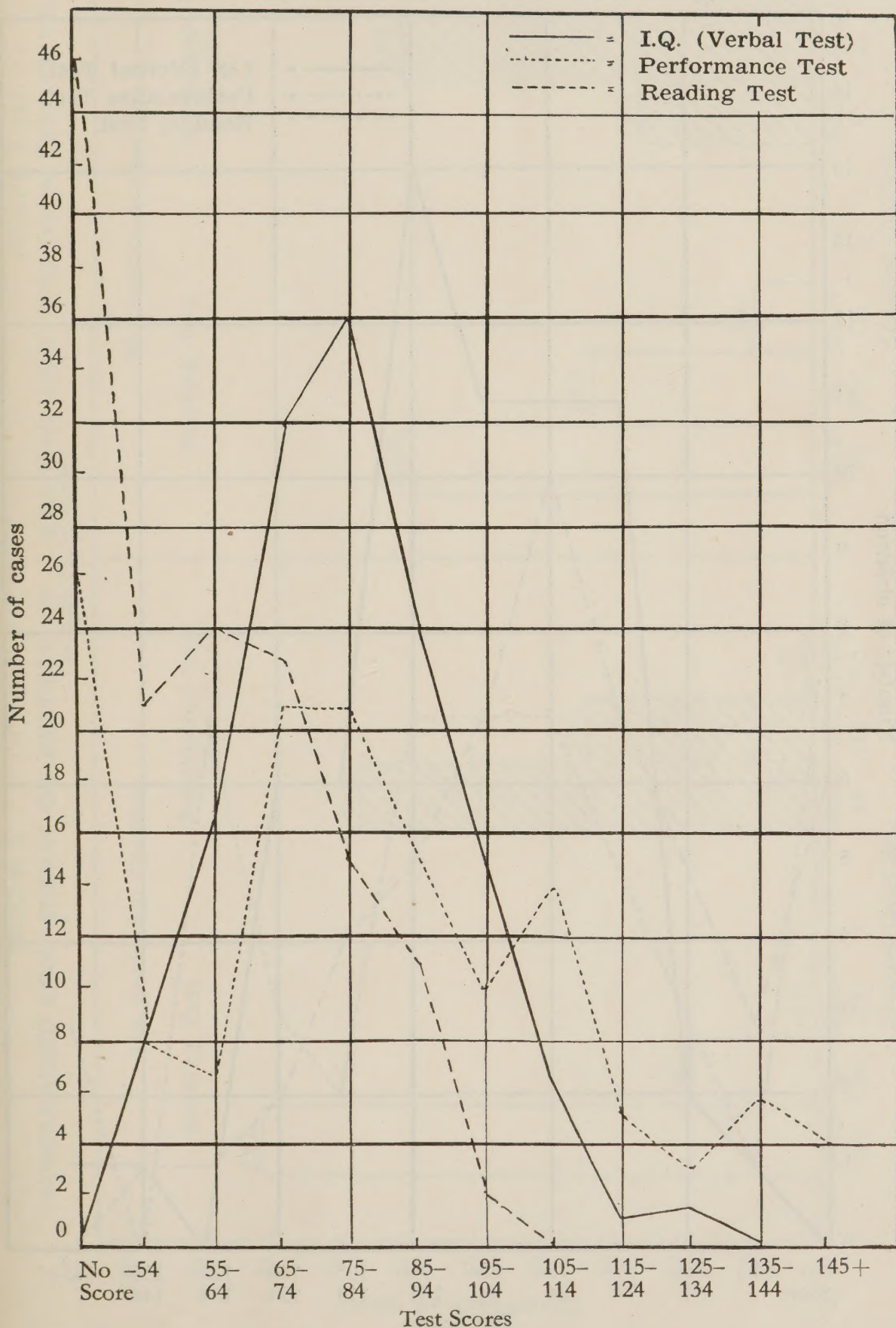


GRAPH 3  
CHILDREN REFERRED AS BACKWARD. DISTRIBUTION  
ACCORDING TO AGE (144 cases)



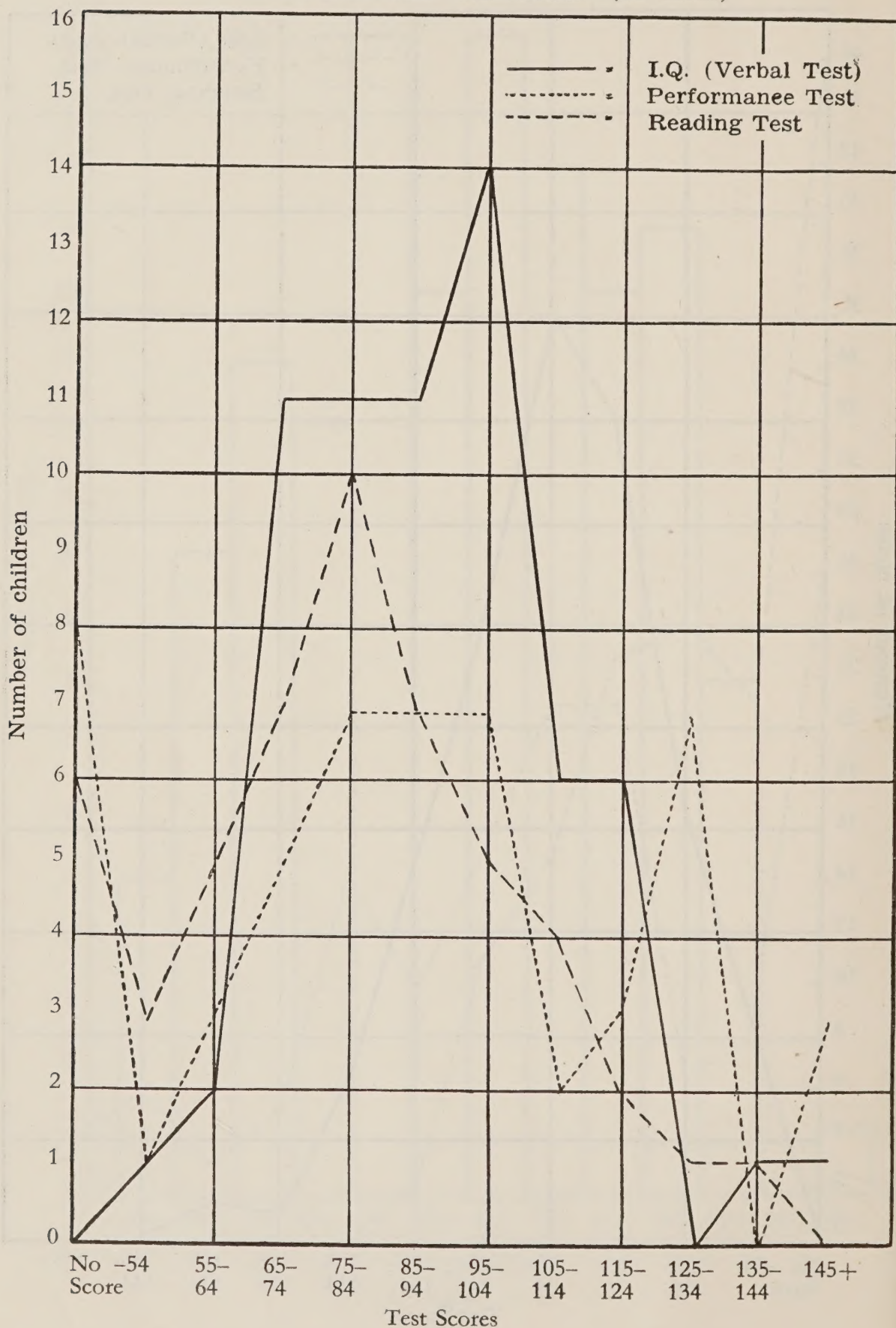


**GRAPH 4**  
**RESULTS OF VERBAL AND PERFORMANCE TESTS OF**  
**INTELLIGENCE AND OF A READING TEST AMONGST**  
**BACKWARD CHILDREN (144 cases)**





GRAPH 4 (a)  
**RESULTS ON VERBAL AND PERFORMANCE TESTS OF  
 INTELLIGENCE AND OF A READING TEST AMONGST  
 UNSELECTED CHILDREN (59 cases)**

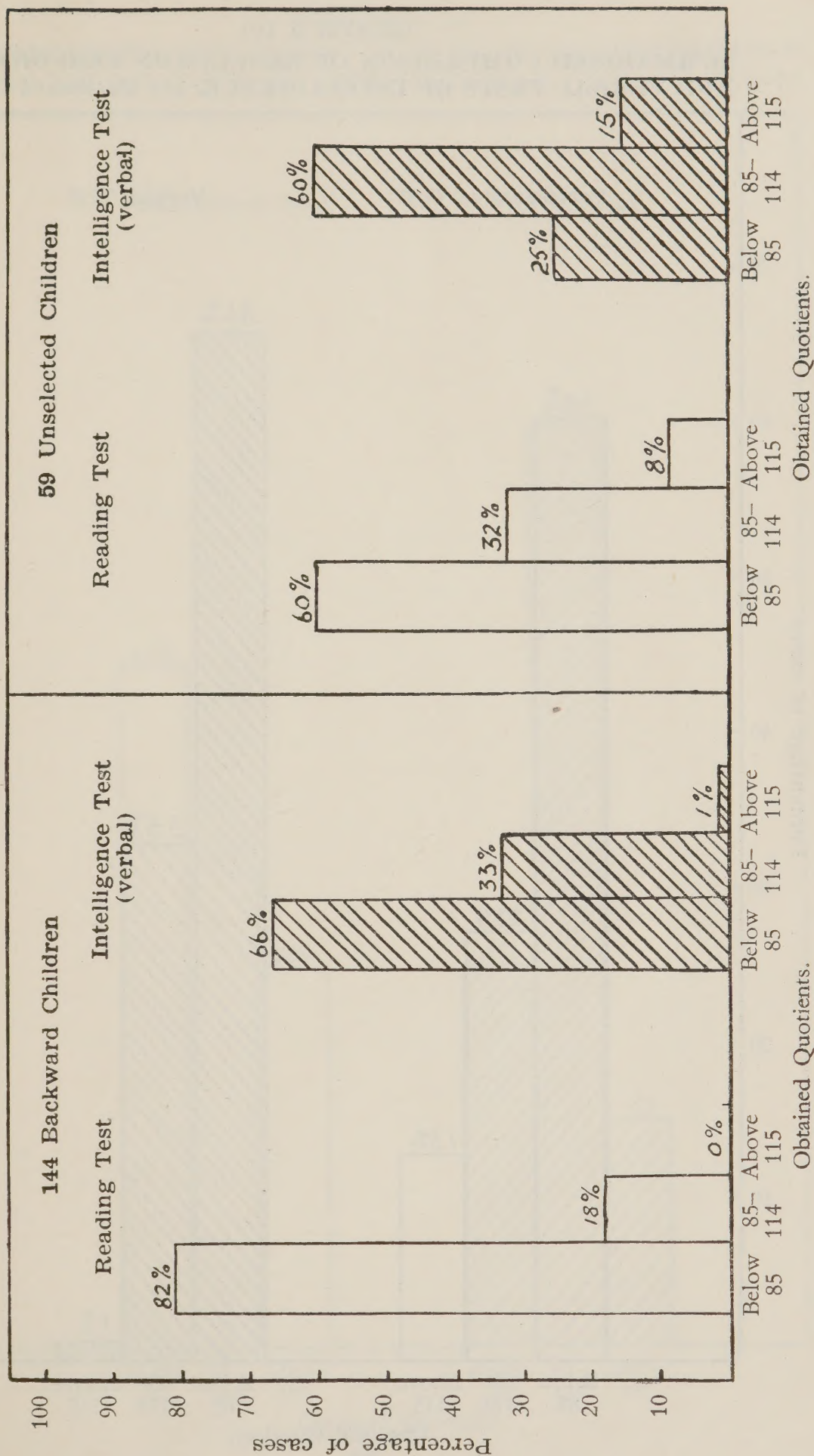




GRAPH 5

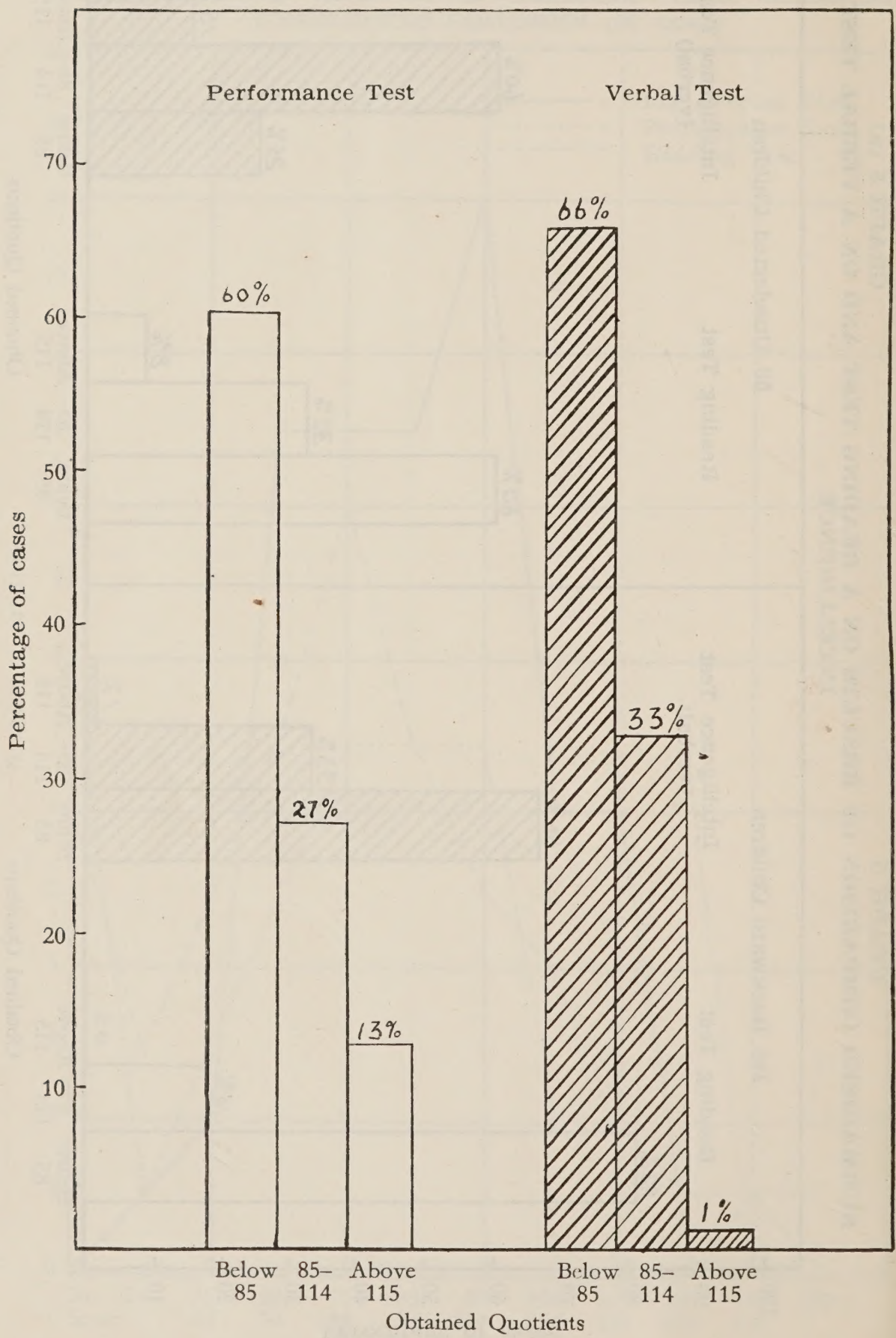
GRAPH 5 (a)

SUMMARISED COMPARISON OF RESULTS ON A READING TEST AND ON A VERBAL TEST OF INTELLIGENCE





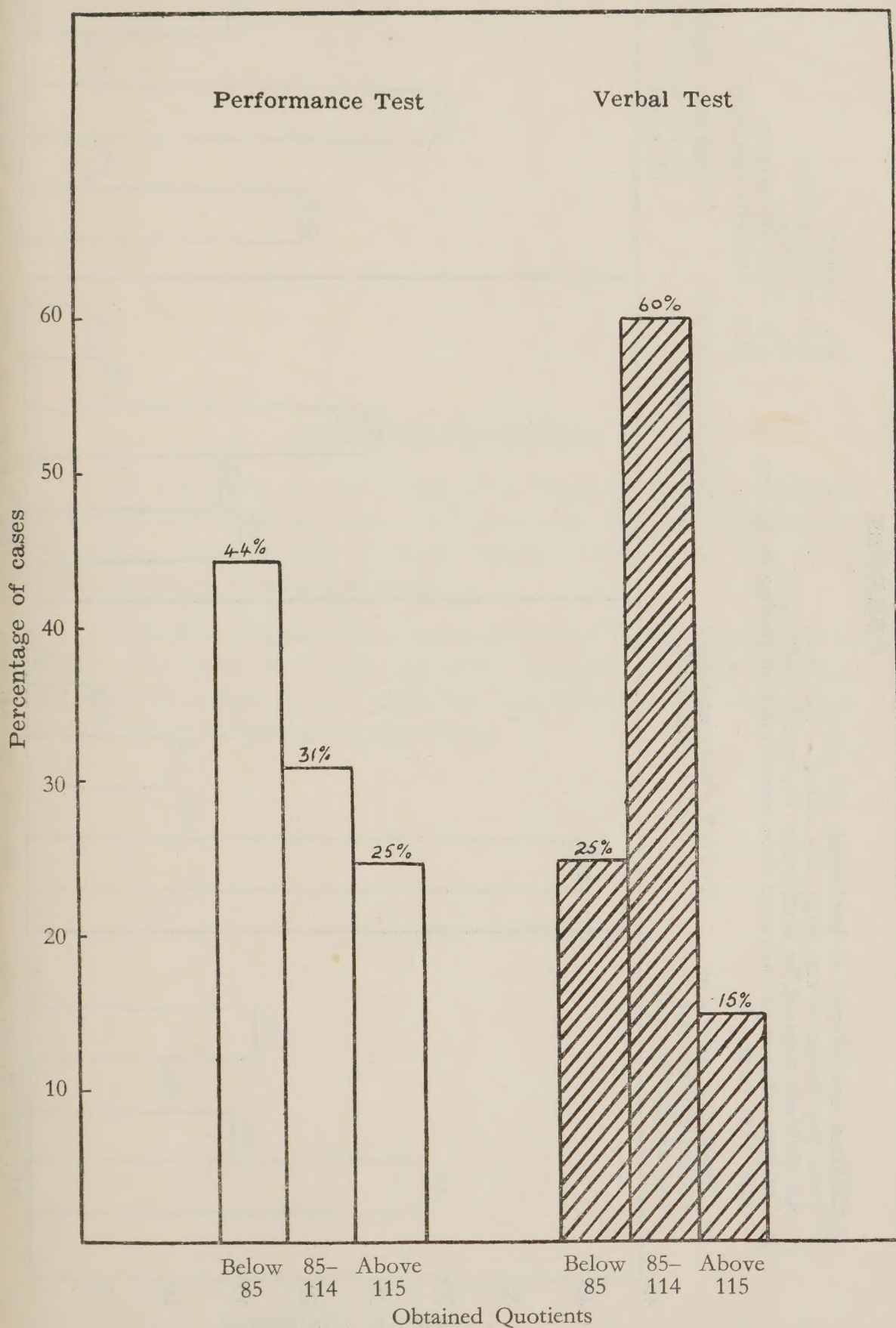
GRAPH 5 (b)  
SUMMARISED COMPARISON OF RESULTS ON PERFORMANCE  
AND VERBAL TESTS OF INTELLIGENCE. 144 Backward Children





GRAPH 5 (c)

**SUMMARISED COMPARISON OF RESULTS ON PERFORMANCE  
AND VERBAL TESTS OF INTELLIGENCE. 59 Unselected Children**





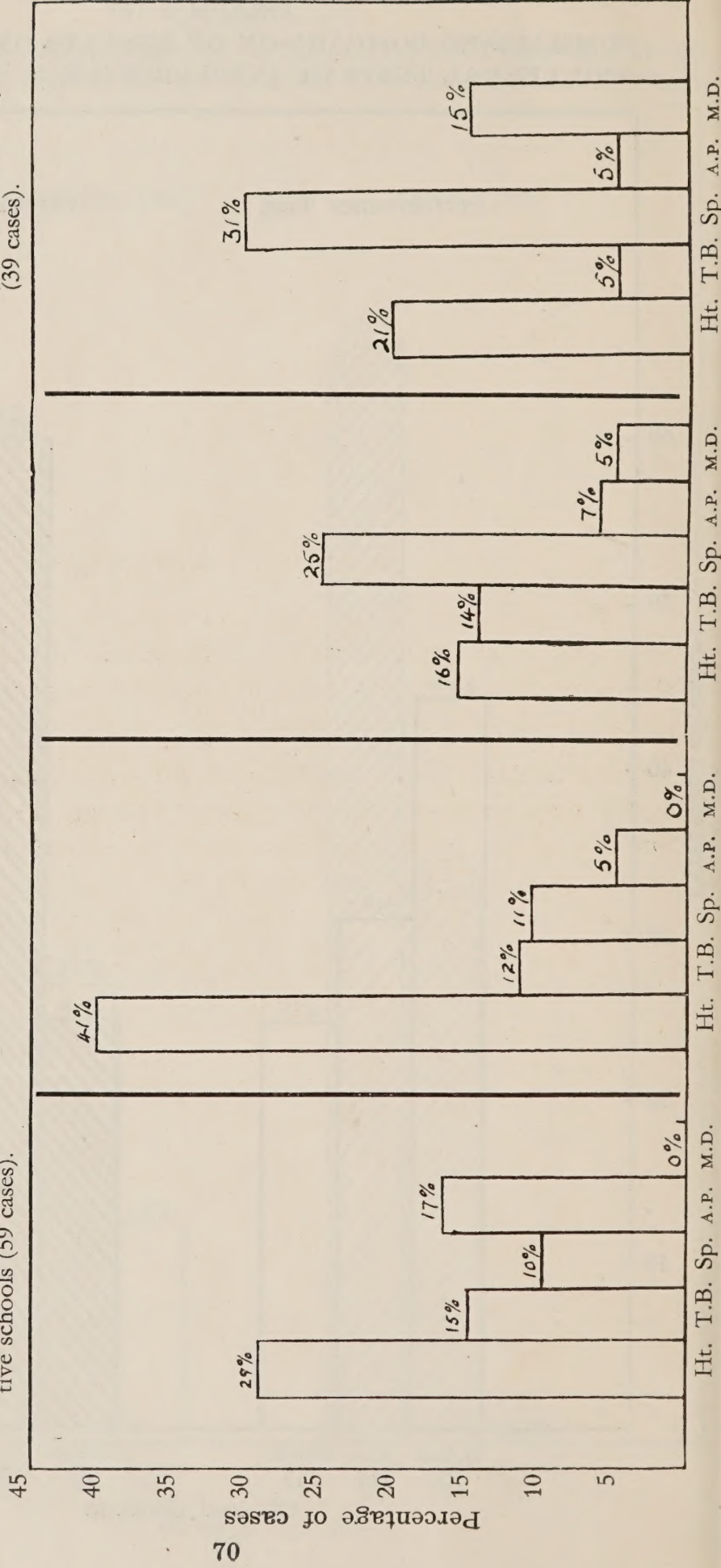
GRAPH 6

# DISTRIBUTION OF FIVE DISABILITIES AMONGST FOUR GROUPS OF PHYSICALLY HANDICAPPED CHILDREN

- (a) Children not selected as backward. (59 cases).
- (b) Total population of one large day school. (128 cases).
- (c) All children referred by teachers as backward. (144 cases).
- (d) Children referred as backward who were found on testing to be very dull. (I.Q. under 70).

Ht. = Heart.  
T.B. = Tuberculosis.  
Sp. = Spastic.  
A.P. Ant. Polio Myelitis.  
M.D. = Muscular Dystrophy.

- (a) Children not selected as backward in their respective schools (59 cases).
- (b) Total population of one day school (128 cases).
- (c) Children referred as backward (144 cases).
- (d) Backward children who proved to be very dull (39 cases).





### **ACKNOWLEDGMENTS**

The members of the team who carried out this Enquiry wish to acknowledge their indebtedness to the Authorities, Hospitals and Schools without whose co-operation the work could not have been undertaken.

Particular thanks are expressed to the Head Teachers and Staffs who gave so readily of time, thought and friendly hospitality, thus making the visits to their Schools such a pleasant as well as an enlightening experience.



*This investigation was carried out by a team consisting of Miss Elizabeth Yeo, M.A. (who is responsible for the Report), assisted by Mrs. Lydia West, B.A. (both educational psychologists on the staff of the National Association for Mental Health), and by Mrs. Olman, a social worker.*

*The team worked under the general supervision of Miss L. G. Fildes, Ph.D., and the investigation owes much to the inspiration of Miss Norah Gibbs, M.A., as well as to the practical advice she gave in its early stages.*







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